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Charlotte Medical Journal.

A SOUTHERN JOURNAL OF MEDICINE AND SURGERY.

VOLUME 62. NUMBER 1 — Charlotte, N. C., July, 1910. — $2.50 PER ANNUM

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Thyroids
Powder and Tablets.

Extracts of Red Bone Marrow
Flesh Maker and Blood Builder.

Elixir of Enzymes
Aid to digestion, Curdling Agent and Vehicle for Iodides, etc.

Suprarenalin
Active principle of suprarenal glands.

Suprarenalin Solution (1:1000)

Suprarenalin Triturates (1/10 of a grain)

Eucapren Solution
Astringent and Anesthetic.

Chymogen
For preparing milk for Infants and Invalids.

Suprarenalin Ointment (1:1000)

Suprarenalin Inhalant (1:1000)

Trypsin Powder

Glycerole Trypsin

Pituitary Body, Desiccated, Tablets (Whole Gland)

Pituitary Extract (Anterior Lobe)

" " (Posterior Lobe)

Parathyroids
Powder and Tablets.

Lecithol
Emulsion of Lecithin.

Pepsin, U. S. P.

Pancreatin, U. S. P.

Benzoinated Lard, U. S. P.

ARMOUR AND COMPANY

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Mecklenburg Chloride of Calcium and Mecklenburg Lithia

are not only medicinal, but absolutely pure as well as unique in their constituents, Read below what eminent physicians say as to their medicinal properties, also what the best chemists say as to their purity.

Acute Nephritis.

Dr. Hugh McGuire, 201 South Washington Street, Alexandria, Va., under date of January 21, 1903, writes:

I have recently had an opportunity to try the case of Calcium Water you so kindly sent me some time ago on a case of Acute Nephritis following scarlet fever. The water, with an appropriate diet, was the only remedy used, and the result obtained was brilliant—all abumen disappearing in eight days.

It is needless to add that I will continue to use your water when indicated.

Dr. J. N. Upshur, Professor of Materia Medica in the Medical College of Virginia, at Richmond, Va., writes:

I have watched with interest the effect of the Chloride Calcium Water in an unusually aggravated case of eczema complicated with other serious troubles, and observed marked benefit.

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The waters possess remarkable powers. The Lithia water found there is second to none, and the Chloride of Calcium Water is unique. Such a combination, to my knowledge, does not exist anywhere else.

It is needless to speak of the applicability of these waters. Their analysis will make their uses plain to every physician. They are already widely known to doctors throughout the country, and their virtues will be recognized.

Many wonderful cures have been wrought by them—a fact well known to me personally and through other physicians.

Yours very sincerely.
(Signed) George Ben Johston.

Dr. Hugh M. Taylor, Professor Surgery, University Medical College, Richmond, Va., writes:

This water is the most valuable in Virginia. For gastro-enteric troubles it is especially valuable. Wishing you success, I remain. Cordially,
Hugh M. Taylor, M. D.

Norfolk, Va., May 20, 1909.

I have used the Mecklenburg Mineral Springs Waters quite extensively for five years, with general good results. Especially have I been pleased with the "Chlorinated" water in albuminuria of pregnant women; in the treatment of such cases it stands FIRST with me.

(Signed) Livius Lankford, M. D.
President Norfolk Medical Society.

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Mecklenburg Mineral Springs Co.,
Chase City, Va.

Gentlemen: I cheerfully give my testimony as to the great virtues of the Mecklenburg Waters of Chase City, Va. For diabetic trouble I do not know their equals. They made a new man of me.

Yours very sincerely,
(Signed) J. J. Hall, D. D.

These waters are analized once a month by two of the best chemists in ths South, and are always found pure. They are bottled in the most hygienic manner possible. Write at once for booklet.

FOR SALE EVERYWHERE.

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CHASE CITY, VA.

FROEHLING & ROBERTSON

Richmond Testing Laboratory

Richmond, Va. March 19, 1910

The Mecklenburg Mineral Springs Co.,
Chase City, Va

Gentlemen:—

For sometime we have been retained by you to exercise a sanitary supervision over your Mineral waters, covering the source of supply and methods of handling and bottling. This arrangement has insured the best hygienic precautions being taken in the handling of the water, and the regular monthly tests which we have been making, have shown that the waters are quite free from any contamination.

Your very truly,
(Signed) Froehling & Robertson.

The Charlotte Medical Journal

VOL. LXII CHARLOTTE, N. C., JULY, 1910. No. 1

Treatment of a Case of Pellagra by Appendicostomy—Preliminary Report.*

By Henry Norris, M.D., and M. H. Biggs, M.D., Surgeons to the Rutherford Hospital, and H. C. Chase, M. D., Resident Surgeon The Rutherford Hospital, Rutherfordton, North Carolina.

The patient, Mrs. H. S., (R. H. Case No. 1177) a resident of Fingersville, Rural Free Delivery Route No. 1, South Carolina, was admitted to the wards of the Rutherford Hospital Friday morning, June 3rd, 1910. She had not been referred by her physician but applied for admission on her own initiative. Her history is as follows:

White married female, æt. 37. Mother of six children, all of whom are living and in good health. Was born and reared in Rutherford county, N. C., but has lived in Polk county, on the southern border, since December, 1909. Husband at present in the Insane Hospital at Morganton, and has been there for the past eighteen months. For several years preceding his insanity he had an eruption and a scaling of his hands and forehead, sore mouth, diarrhea and was quiet and sad.

Family History.—Mother living, age 55, in feeble health but has no known disease. Father died from unknown cause. Has two sisters and three brothers living and well and one brother who has pulmonary tuberculosis. Health of uncles and aunts unknown. No constitutional diseases except the tuberculosis already mentioned. No known diathesis in family. The patient does not know anything about her husbands family history.

Previous Medical History.—Healthy as a child; measles at thirteen; parotitis at sixteen; pertusis when a child. Beyond this never sick in bed until present trouble began.

Gynecological History.—Menstruation commenced at fourteen, always normal. Married at nineteen. First child born about one year after marriage; labor was normal and so were the five succeeding ones. After the fourth labor had one miscarriage; was pregnant for about two and a half months; no known cause for the abortion.

Social History.—Moderate user of tobacco for 25 years in the form of "snuff" and also "chewing." Moderate user of coffee. Moderate user of alcohol—used to her "daily drachm of corn whiskey." No history or any evidences of any venereal disease. Has always worked very hard, both in the house and field, ploughing, hoeing, cutting cross ties, etc., with the men. Has worked this way until her recent loss of health. Has eaten corn bread and "bolted meal bread" half her married life. Her circumstances have always been very moderate.

Present Condition.—In April, 1901, some nine years ago, patient was taken sick with diarrhea and a "reddening" of the hands and feet. She soon got better, but since then has never been able to go barefooted or barehanded as she formerly did because of a return of the "redness" and "burning" of her hands and feet. Besides of this inability to go without gloves or shoes and a slight diarrhea the patient states that she had no further trouble until this spring—April, 1910,—when the "redness" and "scaling" with a severe sense of burning pain, appeared upon her hands, the dorsum of her feet and her forehead. At or about the same time a "sore mouth which continually runs water" developed. About the first of May a diarrhea developed, which consisted of three to four stools each day with the same number each night. Occasionally the movements contained blood and mucous. No medicines the patient has taken has had any influence whatever upon the diarrhea which has been continuous, and the hands, feet and forehead still present a reddened scaly eruption with a very severe "burning," and the "sore mouth" persists with a marked increase of the flow of saliva. The eruption began as a redness like sunburn and then got bluish-brown and scaly.

Condition on Admission.

Appetite.—Fairly good, but condition of mouth is too sore to allow patient to eat very much.

Sleep.—Does not sleep much because of the "burning" of her feet.

Thirst.—Normal.

Bowel Movements.—Three to six per day and night, occasionally some blood and mucous, offensive odor.

Urinary Functions.—Nothing abnormal.

Physical Examination.

General Observations.

Height.—5 feet, 5 inches.

*Read before The Rutherford County Medical Society at the meeting held on Tuesday, June 8th, 1910, at Rutherfordton, N. C.

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Weight.—109½. (Weight December, 1909, 145 lbs.)

Pulse Rate.—72.

Respiratory Rate.—20.

Temperature.—98 degrees, Fahrenheit.

Musculature.—Muscles firm and show evidence of hard work. Emaciation now present, no subcutaneous fat apparent.

Skin.—Erythema well marked on forehead, the hands and the dorsum of the feet.

Regional Examination.

Head.—No scars or deformities. Eyes normal and the pupilliary reactions are normal. The facies is sad.

Neck.—No abnormal pulsations. No tumors. No deformities.

Chest: Heart.—No murmurs, slight myocardial insufficiency. No apparent enlargement or displacement.

Lungs.—Apparently normal.

Abdomen.—No enlarged veins. No pigmentations. No masses. Tenderness along line of ascending colon.

Vaginal Examination.—Uterus in good position, no enlargement, adnexa apparently normal.

Rectal Examination.—Nothing abnormal found.

Spine.—Normal.

Extremities.—No deformities. No enlarged veins. Glands normal.

Examination of Affected Regions.

Forehead.—Dark bluish-brown scaly eruption extending from the eye-lids to the hair margin.

Hands.—Dark bluish-brown scaly eruption. There is a distinct line of demarcation a few inches above the wrists.

Feet.—There is a well marked erythema of the dorsum of the feet.

Abdomen.—There is well defined colonic tenderness, more marked along the course of the ascending colon.

Mouth.—There is a well marked ulcerative stomatitis with a very severe ptyalism. There is no history obtainable of the patient having been taking mercury in any form.

Blood Examination, June 3, 1910.

Blood Pressure.—145. (Stanton App.)

Erythryocytes.—4,100,000 per Cu. m.m.

Hemaglobin.—90% (By the Dare Hemaglobinometer).

Color Index.—99%.

Leucocytes.—16,800 per Cu. m.m.

Differential Count.

Polynuclear Neutrophiles	58%
Lymphocytes	13%
Large Mononuclear	16%
Polynuclear Eosinophiles	3%
Mast Cells	1%

Remarks.—There is an enormous increase in the number of blood platelets. There are no malarial parasites.

Urinalysis, June 3, 1910.

Chemical.—Amber colored, cloudy.
No abnormal odor.
Acid Reaction.
Sp. Grav. 1030.
Trace of Albumin.
Excess of Chlorides.
Excess of Phosphptes.
No Sugar.
No Acetone.
Marked excess of Indican.

Microscopic.—No Casts.
Few red blood cells.
Small amount pus.
Abundant Calcium and Oxalate Crystals, etc.

Examination of Feces, June 3, 1910.

No ovae or parasites of any kind present.

Abundance of undigested muscle fibres and vegetable cells.

Numerous erythryocytes.

Considerable mucous present.

June 4, 1910.—Specimen feces stained by Grams stain.

Abundant Bacillus Bifidus—Antenated Type.

Diagnosis.—Pellagra, Chronic.

The operation of appendicostomy, for the purpose of irrigation of the colon and the ileum was explained and advised to the patient, who readily consented to the operation. She was therefore prepared in the usual manner for a laparotomy. The operation was performed by Dr. Norris on June the 4th, at 8:45 a. m. Ether was used for anæsthesia, given by the open drop method. The operation was begun at 8:54 a. m. An incision in the skin, one and a half inches long, was made and carried down through the fascia of the external oblique. The fibres of the internal oblique were then separated and an incision in the peritoneum one inch in length was made. The appendix was found lying anteriorly and free from adhesions with the tip over the brim of the pelvis. It was brought up through the wound and the cæcum was anchored to the parietal peritoneum by four sutures of number two silk. The abdominal wound was then closed by catgut sutures in tiers. The appendix was anchored by one silkworm gut suture at the skin surface. The usual dressing was then applied and the patient returned to bed in good condition, temperature 97.4 degrees Fahrenheit, pulse rate 96. The operation was concluded at nine minutes past nine o'clock, having taken just seventeen minutes. The total amount of ether used was five ounces. The patient showed a moderate degree of reaction, the highest temperature after operation being 101 degrees with a pulse rate of 118

at 10 p. m. The following morning the temperature was normal and the pulse rate was 90. The temperature and pulse rate have since been practically normal. The appendix was cut directly across just twenty-six hours after the appendicostomy was performed and the colonic irrigations with normal salt solution at body temperature were commenced. Already the patient has experienced some relief.

Impaired Gastric Motility as a Factor in Digestive Disturbance.*

By John M. Upshur, M. D., Richmond, Va., Ex-President and Honorory Fellow of the Richmond Academy of Medicine and Surgery, of the State Medical Society of Virginia, of the Tri-State Medical Aesociation of lhe Carolinas and Virginia; and Honorary Fellow of the State Medical Society of West Virginia.

Digestion to be normal must be rapid, painless, and complete. An essential factor in this condition is that Gastric peristalsis shall be vigorous enough to thoroughly incorporate the food taken into the stomach with the gastric juice, and when the process is completed, pass it on to the small intestine for assimilation, or completion of the process of digestion of such articles of food as simply undergo solution in the stomach. That the gastric motility should be vigorous enough depends on the nervous force which is the stimulant to gastric motion, failing in which fermentation of food occurs, and faulty assimilation results. It is easy to see what ills follow in the train of this condition. Of course in the more acute digestive disturbance the source of trouble may be in the stomach itself, but these cases are transient and soon relieved. We have under consideration those cases of gastric disorder, more or less chronic in character. In these cases, a test meal, and analysis of the same, shows the conditions present in the viscus itself, but it does not clear up the cause on which it depends. Relief in these cases can only be partial and palliative, and not permanent. If confined to lavage, electricity, and exhibition of such drugs as only exert their influence on the stomach itself, it is like whipping a foundered horse, and in the end adds to the gravity of the trouble. One of the popular remedies is some form of digestive ferment; in the experience of the writer they are absolutely useless. No man has ever discovered how much gastric juice is secreted for the digestion of a given meal; it is like the grinding of the mill, the water flows over the wheel until the grinding is done and then stops. When food is pu into the stomach it stimulates the flow of gastric juice until digestion is complete, and then stops; the pitiful dose of a digestive ferment is simply wasted and lost in a quart or three pints of a fluid composed of dissolved food and gastric juice, and is too puny to exert any influence. Wrong inference is drawn as to their action, because the rule is to give them with active agents like dilute muriatic acid and strychnia, which do exert a very decided influence. Many, indeed I may say most, of the cases of gastric disturbance of a functional nature, are seen in business men, who have had a let-down from business strain; professional men laboring under nerve tension, irregular meals, and hours of rest and recreation; women breaking down from the exactions of household cares, or the demands of social rush and dissipation, impaired general health from nursing, or too rapid child-bearing, or the use of means to prevent conception, that they may be exempt from the demands on true womanhood in the care of children, or it may be nervous breakdown, reflex from pelvic lesions following, difficult labor, or in younger women, those conditions functional, or organic, which lay back of a distressing dysmenorrhœa. Organic disease of the stomach, cancer or ulcer, or the stricture of the pylorus resulting from such lesions, are not under consideration. Nor those cases of stomach deformity or misplacement brought on in women by tight lacing. These are the cases to be referred to the surgeon for such operative interference as is indicated for the purpose of establishing a proper drainage. But we do see serious cases of gastric dilatation where there is no obstruction at the pylorus. Deficient gastric motility results in fermentation, development of large volumes of gas, and stretching of the stomach, until it is in a condition of almost complete paresis. The atony of the stomach in the aged, resultant fermentation, distention of the stomach with gas, crowding of the heart by upward pressure on the diaphragm. Often in these cases there is existent a myocarditis, patient suffers with distressing dyspnea, and agents addressed to increasing and sustaining the heart action fail to give relief. The nervous system suffers secondarily also, because of the toxæmia from absorption of toxic gases. In those subjects young enough to respond to the therapy of rest, nervines, lavage, and electricity, improvement in the motor vigor of the stomach means relief and cure of the dilatation, and complete restoration to health. I recently had under my care a physician, whose life, as to meals and sleep, was very irregular, the heartiest meal of the day being at night, when the stomach muscle, as well as all the rest of the mus-

cular system, was tired. He was in the prime of life, not forty years old, had distressing cardiac symptoms on retiring, pulse missed a beat every now and then, and respiration interfered with. Was diagnosed by a competent physician as cardiac trouble, primarily. I found him with slow digestion, excessive fermentation, sense of distress in epigastrium. He was completely and promptly relieved by therapy addressed to improved motility, strychnine being a conspicuous agent, and regulation of diet, insisting on last meal of the day being a light one, and regularity in hours of eating and sleeping. In another case, a woman past fifty, sick for years previous to consulting me. She had distressing general eczema, had lost flesh, had impaired digestion, and diarrhœa from fermentation. Health had begun to fail after she had had much trouble and affliction in the loss of her husband. Remedies addressed to the upbuilding of her nervous system, with nutritious and easily digestible diet, brought prompt relief. In short, the point I wish to emphasize, is that very many of the cases which come under our observation of intractible indigestion, are due to interference with the physiologic function of the stomach, because of faulty and impaired motility, back of which is some interference or lowering of nervous force, because of some condition outside of the stomach, break-down physical and mental from excessive strain of some kind.

A word, in conclusion, as to the drugs indicated in the therapy of these cases. None stands ahead of strychnia, given in full doses and long continued, but I want to call especial attention to *condurango;* it is described as an astringent bitter, I am sure that it is more. Clinical observation has revealed the fact that the usual dose, (forty drops of the Fl. Ex.), given to susceptible subjects will produce vertigo and ringing in the ears. I feel confident as the result of much clinical observation, that it has the especial property of stimulating gastric motility; in my hands I have had no remedy more prompt in relieving accumulation of gas in the stomach from fermentation, and giving tone to the stomach. Lavage does good, not simply by relieving the stomach of undigested and fermenting detritus, but I believe more certainly as a direct means of massage of the stomach muscle; of course it is useful only as an adjuvant. In this day of specialism, the great need is, to look beyond the organ specialized, for many times the breadth of mind and ability which does this will solve a difficult problem, which will not respond to remedies addressed solely to the diseased organ or function. It is always bad to look at things through a crack, or with a bias in the direction of the thing specialized.

What May we Do to Prevent Relapse in Cases of Pulmonary Tuberculosis with the Disease Apparently Cured or Arrested.*

By I. J. Archer, M. D., Black Mountain, N. C.

As the physician stands ready to part company with the patient for whom, and with whom, he has been working for months, perhaps years, there is no question which comes to him more forcefully, more acutely than this, "What is to be the permanency of my work in this case." It is vital and fraught with interest both to patient and to physician.

It is of interest to the patient, because upon its answer must he shape the new life which lies before him. It is of interest to the physician, because upon its answer depends the sense of satisfaction, or the lack of it, which the painstaking workman enjoys in the finished product. It is vital also to his reputation, because upon the issue of the case must the character of the physicians' work either stand or fall in the eyes of his confreres'.

The demands upon our time are so numerous that the details of any particular case occupy but a small point of time or consideration. Only the barest details of the history of the case is remembered—"Diagnosed tuberculosis—referred for treatment —discharged as cured or arrested—recurrence of the disease." Thus is our work jotted down—staccato like—in the consciousness of our fellow physicians without the time to inquire, perhaps, whether there may have been a sufficient cause.

I think I speak advisedly when I say that, perhaps, no disease during the active period of its treatment, as well as the months and years supervening, requires such unremitting attention to detail, such continuity of purpose and plan as must be exhibited in the care of tuberculosis.

It would come as a great relief if we might devise some formula, some favorite prescription which could be given out in a single interview to supersede all the world of detail which we now employ to prevent relapse.

In the absence of any such ready method we may derive something of profit in considering the details which experience has shown to be of value.

Some of the details are as follows:

1st. Instruction of the patient and his family as to danger of relapse, and how he should live to prevent it.

*Read before the Tri-State Medical Society at Richmond, Va., February, 1910.

2nd. Prolonging the period of active medical supervision.

3rd. Choice of climate in which to live.

4th. Choice of occupation.

5th. The hardening process which should be carefully prescribed by the medical adviser.

6th. The use of tuberculin for immunizing purposes.

The education of the patient as to the manner in which he should live after he leaves active medical supervision should begin as soon as he shall have placed himself under our care and should be continued during the entire period of his treatment.

To successfully institute such instruction it is first necessary to thoroughly impress the patient with the thought that the task before him is one that will extend throughout the entire period of his life; that is to say that it will be necessary for him to live a modified, restricted life; and to accomplish this the most successfully he should apply himself at once to receive instruction, both by precept and example.

He should be instructed that he is not *cured* in the sense of being re-established into the former condition of assuming the same hazard of exposure, of excessive fatigue and exhausting labor as of old. It is true, perhaps, that a very considerable number will be enabled to return to the old regime, but we can not know while these patients remain with us and prior to the time when they have tested their own strength and endurance and wisdom and judgement, to whom has been restored the former life unimpaired in all its capacities and powers; and since we can not know we must prepare each patient as though to him, personally, will come the great danger of relapse.

One of the most perplexing questions and one that taxes our resources to the utmost, is this, "How is it possible to keep effectively before the patient the morale which we have inculcated after our personality shall have been removed from the forces acting upon his life."

We are so prone to forget—so prone to lose the image—the concept once so clearly outlined. A suspended danger loses its terror as events move on and no evil has befallen.

Damocles during the early feast-hour may view the imminent sword with apprehension, but ere the banquet is done the danger is forgotten.

It is unfortunate that we have not some visualized method, such as the dial of the clock, so that our patient may sense the movement of events, or if you please an amplified thermometer which would record not only temperature, but the exact status of all physical conditions as well, which we might place in the hand of our patient as he leaves our care. In the absence of such aids it remains for us to adapt to our use such methods as are feasible.

Some plan or device which involves on the part of the patient the taking of an inventory of his condition at regular intervals, will serve in a measure to keep before him the life which has been planned for him.

A plan which has proven of value is to require of the patient a regular report to be made monthly (or at stated intervals) which will embody the recording of such part of the symptomatology of his case as is competent and within his powers of observation and judgment.

Some such aid as this, by which the patient is required to sum up conditions, will put the matter before him in perspective and enable him to compare his condition month by month.

The patient will in this way obtain, perhaps, as much benefit as he will derive from the advice which he may receive in reply to his report.

There are other methods which may be utilized to freshen the memory and keep ever present the necessity of correct living. A round robin or class letter may be of value in which all congenial spirits under treatment at any given time may share, and add each one his recital of progress and any other item of mutual interest since last they had met.

It happens often that the family of the returning patient is more at fault than is the patient himself, in the failure to observe the correct life. They have not been educated to the necessity of open air life and wholesome hours, of necessary restrictions upon too great fatigue, and other matters which interfere with the accustomed regime of the home, and trenches, perhaps, upon the comfort of other members of the household.

A letter from the physician to the family will be helpful, outlining just what should be done by the patient; how he should live and his limitations; and courteously suggesting what the family may do to assist in carrying out these plans and asking for cooperation for the next year or so in "clinching the matter.

I fear that we as physicians are at times not entirely without fault, in that we allow our patient to leave our care without having it clearly before him and before his family, to whom he is returning, that we are not turning out a finished product—but that it will be necessary for the patient, with the co operation of the family, to complete the work, towards which we, as physicians, have contributed so great a part in

the arrest of the disease and a restoration to a condition which we may hesitate to call a cure, but of which we confidently say the patient is physically well.

The letter to the family should have preceded the patient a sufficient space of time, so that special provision may have been carried out to enable him to live hygienically as soon as he shall have returned.

It is preferable that he should have set aside, for his exclusive use, a portion of the home so that he may not interfere with ordinary home life. This is particularly true of his sleeping room, for it is the exception that other members of the family are willing to share what they consider the discomfort and inconvenience of a room as open as is necessary for the use of our patient. The matter of diet, of social functions, the attendance upon public affairs in poorly ventilated rooms should all be outlined to the family as well as to the patient.

Prolonging the period of treatment derives its value from two particular causes. Primarily, each week which the patient spends under medical supervision after the symptoms have disappeared and the disease is apparently arrested lessens the actual danger of relapse.

Secondarily, by contact with the physician he becomes thoroughly impregnated with the apprehension of relapse, which is present in the mind of his medical adviser, and it thus becomes to him a restraining influence, guarding against excess in after life. The question of the probable length of time which will be required under actual medical supervision must be approached guardedly.

Often in the early history of the case motives of delicacy, lest we injure the reputation of a fellow physician in the eyes of his patient, prevent perfect freedom on the part of the physician in outlining to him the probable length of time which will be required before he can return to his former method of living.

He comes to us frequently with a statement from his doctor that two or three months will suffice to effect a cure, and possibly without having been informed at all that he has tuberculosis.

It may chance that the doctor thought he was advising with honest accuracy, for there are yet remaining some who think that a few months time is all that is necessary.

On the other hand, and which more frequently occurs, our patients' medical adviser has not wished to discourage him by presenting at the outset what might have seemed impossible; has hoped that if he could induce his patient to decide upon the shorter period of treatment he would gradually and progressively, by a process of education and observation, come to understand the necessity for the longer period of care, and it is possible, too, that the physician who has referred the case has imputed a little more tact than has been allotted to some of us and has expected that if only he could prevail upon the patient to decide upon the *fact* of treatment we will be able to diplomatically lead him to a better understanding of the truth in the matter.

For these reasons we must move the more cautiously in reconstructing his views.

In medicine, as in religion, no one should have more truth thrust upon him at one sitting than he has capacity to absorb

To inform him at the first interview that his conceptions are all wrong is the easiest method and the one that most appeals to our sense of honesty, but it is not the most helpful. The bluntly honest man is sometimes a brutally honest one whose bluntness alienates his patient and he thus becomes a negative force.

That course exhibits the wisest and the most helpful honesty which keeps continually in mind the patients greatest good, leading him out towards the truth as rapidly as he can be made to bear it, keeping in mind always that he must make no misleading statement.

As stated heretofore, the gravest danger of relapse occurs in the months immediately following cessation of all symptoms of the disease. The patient believes himself cured and it requires constant instruction to convince him that this period of latency is as yet only tentative and continuous during good behavior; that slumbering underneath this quiet exterior are potential forces not yet subdued, but only held in check.

Perhaps at no time in a case history is required so much continuity of purpose as at this point.

The patient feels that he is needed at home and in business and fears that all is at sixes and sevens. He writes that he is perfectly restored to health as far as he can see and he would like to return if only he can persuade his physician—letters from the family to the physician also indicate how much our patient is needed.

It is such an easy matter to close the eyes to the danger and allow ourselves to be the agreeable, the good fellow, and as if to persuade us into the easier and more pleasant decision we may recall similar cases that have left our care and relapse has not occurred, and we surmise that perhaps it may not occur in this case.

But the ultimate interest of the patient, and his family as well, demands that we refer to the history of all our cases and render verdict in conformity thereto.

The choice of climate for future residence must depend somewhat upon climatic conditions obtaining where patient has received treatment. Among those who have given some time to observing the effect of different climates upon the after history of arrested cases there can be no dissent from the statement that there is a marked difference in the sum total of ultimate results.

It is quite generally conceded that in cases where the disease has been arrested in the high dry climate of the West that the patient must remain in that climate, or one like it, or incur a very great danger of relapse on his return to a lower altitude.

It is a very common belief that patients must remain in the same locality where arrest was secured—this is true only in a limited degree and arises very largely from the number of relapses which occur in cases receiving treatment at the extremely great elevations.

It follows, therefore, in choice of climate for future residence that due reference should be given to the points of similarity between it and the climate where treatment has been received.

In tuberculosis, statistics are notoriously unreliable, so much depending upon our terminology and classification, but, personally, the writer believes from following the after history of cases treated in our own mountain section that the mountains of the Virginias, the Carolinas and Tennessee afford the best climate, both for the arrest of the disease and in permanency of after results.

Whether the patient has received treatment in home locality or elsewhere, it is important to send him back to his former mode of life and occupation at a season of the year which will afford him the least exposure and the minimum of change from the conditions under which he has been living.

In choice of occupation, it is desirable to select one as nearly related as possible in character to work in which patient has been previously employed—if it can be done with safety to patient. There are some occupations which must not be considered at all.

All such as involve the inspiration of dust-laden air or noxious gases, and thus offer either mechanical or chemical irritation to the respiratory tract.

Embraced in this classification is stone and marble cutting, flouring mills, metal grinding, and mills for the manufacture of dry fiber products. We should also avoid all occupations which involve exposure to high temperatures.

It frequently occurs that one who has been occupied with in-door work may secure similar employment out of doors.

If, for instance, occupation has been of agricultural nature patient should be advised to readjust his life to avoid the care of such stock as will of necessity involve the greatest amount of labor and exposure to storm in housing them from inclement weather.

The hardening process, or any other exercise which involves any great amount of muscular tension, should not be instituted until all symptoms of the disease have well-nigh disappeared. The amount of exercise should be carefully prescribed by the physician, and should commence at the minimum, and much less, in fact, than the physician believes his patient may really endure without fatigue or development of any untoward symptoms. On observing that no unfavorable results follow let him gradually and progressively increase the amount. At first there should be no hill climbing and no exercise requiring extensive use of muscles of upper part of body. Later both hill climbing and use of all muscles should be included in prescribed exercise. No one prescription requiring an increase in powers of endurance should include increase of two kinds of exercise at the same time. This for the reason that if results prove unfavorable it is impossible to know which form of exercise has been at fault.

The choice of an occupation for later years ofttimes depends upon the patients' power of endurance as shown by these tests.

These trials of strength should be gradually increased until they quite exceed the amount of endurance which may be required of the patient in the occupation to which he goes—just as a boiler is tested far beyond the strain which it is expected to resist before it leaves the hands of the workman.

Tuberculin as an immunizing agent is used very much more extensively than a decade ago and in a number of cases by some of the best of our men who only a few years ago condemned its use. This change has been wrought as a result of its more conservative and saner use and its undeniable value when thus used.

While I am not yet prepared to say that cases using it improve more rapidly than those who do not, I believe as a result of my limited experience in its use that cases receiving it incur less danger of relapse than those who do not.

In closing, allow me to say that I have particularly stressed the matter of educating the patient and the family concerning the danger of relapse and how to live in order to avoid such recurrence because in my experience and observation such instruction has done more to give permanency of results than any other factor.

A danger comprehended is more than half avoided.

Climatic vs. Home Treatment in Pulmonary Tuberculosis.*

By C. P. Ambler, M. D., Asheville, N. C.

Time has demonstrated conclusively that the myriad of remedies heretofore used in the treatment of pulmonary tuberculosis has only meant that no drug measure against the disease can, in itself, be depended upon for bringing about a cure.

Those physicians, who, for the past decade, have given particular attention to this disease, long ago recognized that medication through the stomach accomplished but little; often produced more harm than it did good; we now know that the stomach must be safeguarded as the best asset at the patient's disposal; that treatment, as such consists more of the regulation of the patients' life than in the administration of drugs.

The few of us who have constantly used tuberculin (both as a diagnostic and curative measure) since it was brought out in 1892 have prophesied that the disrepute into which this drug fell some ten years ago, would be followed by a reaction favorable to the remedy. This prophesy is now coming true and much is being said of tuberculin for home use. This is as it should be. The administration of tuberculin cannot be undertaken at home, however, with the expectation of placing all dependence upon this drug. If any other measure offers additional help it should be taken advantage of whenever the patient can meet such measure or expense. Tuberculin can be depended upon best in an institution; in fact any measure we have in use today in treating pulmonary tuberculosis accomplishes better results in a properly conducted institution than it does outside, for the reason that the patient is under closer observation and the directions given are more explicitly carried out. A properly conducted institution, located in a favorable climate and under the charge of one who has thorough training in treating this disease offers the best possible results.

Granting that medication through the stomach accomplishes but little except in relieving acute or distressing symptoms and granting further that one of the most important points in managing a given case is to keep the patient in the open air—where can this best be carried out?

The attention of friends, the many interests at home, business on the part of the father, family on the part of the mother, ones troubles and annoyances in housekeeping—social duties—a necessary and most laudable interest in the troubles and sorrows of our intimate acquaintances, all tend at home to call one and require one every day of his life, to do those things which are best avoided on the part of the patient.

After an experience of twenty years with tuberculous patients, the writer can positively say that in but the rarest instances have we met the patient who will forego at home those pleasures which are a constant menace. Away from home he leads a more quiet life, is earlier to bed, is not confronted with the annoying solicitude of friends, gives himself up the more thoroughly to following the proper course in all things, and is not constantly in dread that his home acquaintances will become familar with his condition.

It is true that in sending the patient away from home he is in new dangers and that new temptations assail him, particularly so if he is not under the care and supervision of a medical man competent and familiar with the requirements in these cases. It is a mistake for any one to get the idea that change of climate is everything. For the patient to leave even a moderately comfortable home and locate himself in a cheap or indifferent boarding house, with indifferent food, or food unsuitable in his case, without the means to at least live up to the same standard he has enjoyed at home, is the height of folly.

Friends, and alas, physicians, too, suggest and advise that the patient who cannot work at home will quickly be enough better in a different climate that they can return to work. Personally, I do not believe that any tuberculous patient who has quit work at home should ever be led to believe that he can, by changing climate, quickly return to work.

Properly conducted home treatment will, in any case capable of improvement, bring about good results, without regard to climate. It cannot be denied, however, that in certain sections of the country there are fewer cases of the disease develop, in proportion to the number of inhabitants, than in other sections. This being true, the same conditions which protect the citizen native to any place, should and does have a favorable influence upon the cases coming into this section from a distance or from a less favored locality.

Home treatment, properly carried out, has in the past, does now, and will in the future produce good results but never in proportion to the results accomplished by the same careful management in a more favorable climate. If the patient is so situ-

*Read before the Tri-State Medical Association, Richmond, Va., Feb. 15-17, 1910.

ated in the world financially that to leave home is impossible, he should be encouraged and given to understand that while a change would be a further aid it is not in itself an absolute necessity for improvement or cure. Where the patient can leave home, however, he should be so advised at once; the case should not be watched for months for developments and then sent when too late.

The advantages of climatic over home treatment do not consist of simply the changed atmospheric conditions. The change gets the patient out of the rut wherein his disease was developed—new sights, new sounds, new faces, a change of food, a change of thought and action, a change in the entire mode of life, the difference of altitude and all go far toward producing better digestion and assimilation. A change of but a few miles from home will frequently produce astounding results in a patient doing badly at home. We have been over zealous in attributing the rapid improvement observed in cases at the various resorts, to the climate of the particular locality —the psychological influence upon the patient by a change from home is worthy of our study and has produced results little dreamed of by many of us. A good climate, as we understand the term, consists of a place where the conditions are such that the patient can live the greater part of his time in the open air, at the same time receive and enjoy the best of nourishment and the advantage of such attention as his case requires. Too little study is often given to the individual case in advising a change of climate—high altitude suits one, but means death to another; the arid desert is not an easy place for one to live who has never been out of sight of a hotel; the patient in leaving home should never expect to receive work and thus support himself; in the rarest instances are free hospitals and institutions open to the patient whose home is in a distant State; living usually costs more away from home; resort towns are not philanthropically conducted places; in other words "climate" invariably costs money. If the patient is without money he is safer, will live longer and die happier at home. The patient who, after a sojourn of a few months, returns home, without cough, without expectoration, greatly increased in weight and apparently in perfect health, often breaks down after a few months at home and quickly becomes worse off than ever. This means that his diseased area has become incapsulated; that the fibroid changes exist only at the periphery of the diseased area; under the old mode of life the latent disease again becomes active. It is argued in favor of home treatment that when the patient does improve at home, this relapse does not occur. Possibly so; but does this improvement occur frequently enough at home to warrant one running the risk he assumes? In either event where the treatment is coupled with tuberculin, be the same used at home or at a more favorable climate, this relapse is not near so frequently observed.

Pulmonary tuberculosis is a disease of relapses; we should remember that this is the history of practically all cases; rarely does the patient go steadily down and out.

A change of climate is no new fad, is not an experiment; for ages this means of combating this disease has been used with good results. In Germany where the treatment of this disease has reached nearer an exact science than at any other place on earth, they still believe in climate.

Are we justified in withholding from patients the additional advantage to be gained in seeking a more favorable climate? No.

Are we justified in sending patients from home, in advising them to go to sections where the necessary food and other necessities of life are practically unknown? No.

Are we justified in advising the patient, without sufficient means, to seek a change of climate? No.

Sending the tuberculous patient from home without his knowing the truth regarding his condition is unjust to the patient and means practically a criminal indifference to the welfare of the citizens residing in the locality where he is to be sent.

Education of the patient as to the necessities for cure means prevention on the part of those with whom he comes in contact, be it at home or abroad. Careful professional supervision with more time given for instructions as to the details of the patient's life is the first requisite either at home or abroad.

Conclusions.

1st. Climate alone cannot be depended upon for bringing about a cure.

2nd. Certain climatic conditions most assuredly are detrimental in the progress of this disease, therefore the opposite conditions are more desirable and offer a better prognosis.

3rd. A permanent change is more desirable than a short sojourn.

4th. Climate is but an adjunct in treatment; every other means possible should be used in connection with climate.

5th. More attention should be given in advising the patient what climate to seek.

6th. The patient should be under supervision of a physician without regard to climate.

The Adequacy of the Present Day Treatment of Syphilis Tested by the Occurrence of Syphilitic Diseases of the Nervous System.*

By Joseph Collins, M.D., Physician to the New York Neurological Institute.

The object of this communication is to point out: (1) That the occurrence of nervous diseases that flow out of syphilis indicate that the present day treatment of syphilis is inadequate. (2) That the teachings which promulgate the belief that such treatment is adequate are pernicious and far-reaching in their injuriousness; and (3) That iodide of potassium is not in the strict sense an antisyphilitic agency, in so much as it has not been shown to have a specific action upon the spirochætæ.

There are certain diseases of the nervous system such as tabes, general paresis, a variety of myelitis, meningitis, endarteritis and neuritis that flow directly out of syphilis. This fact is so universally conceded that no attempt will be made here to give it statistical support, nor shall I debate the question whether or not certain of these diseases, such as tabes and general paresis, ever flow from other sources than syphilis. It is generally admitted that an antecedent infection of the blood by the spirochætæ of syphilis is the essential preparation for these diseases.

Until recently much time and pains have been expended to prove that tabes and paresis were not syphilitic diseases in the strict sense of the term. That is, that the morbid process in the spinal cord and brain is not structurally of syphilitic material, that they are what was, and is still called parasyphilitic diseases. It has been assumed that the syphilitic poison in the system causes a characteristic histological reaction evidenced by what is known as the syphilitic exudate, and by the formation of tissue of extremely simple organization.

This assumption is purely gratuitous: and one of the results of the chemico-pathological investigations initiated by Bordet and Gengou and carried on by means of the procedures suggested by Wassermann, Noguchi and others, has been to demonstrate that the syphilitic poison is active in the system of the individual whose tissues reveal so-called primary degenerative disease such as tabes. It may then legitimately be held that it is the cause of such degeneration.

Soon after I first became interested in the study of nervous diseases, being then in the way of observing a large number of cases of organic diseases, I was struck by what seemed to me a most inexplicable state of affairs relative to syphilitic and so-called parasyphilitic nervous diseases, viz., that such diseases developed as soon after infection, and as virulently, if I may use that term, in those who had received what is considered to be adequate treatment for syphilis, as it did in those who had received little or no treatment. At that time I published a study of this subject. (The Post Graduate, 1895). This paper was never widely noticed or commented upon. Some of the views that were expressed therein concerning the advisability of antisyphilitic treatment of the so-called parasyphilitic nervous diseases are now no longer held by me, but many of the facts which that investigation developed have been corroborated by further experience.

The only conclusion that I could draw from the facts set forth in that paper was that so-called adequate treatment of syphilis was in many instances inadequate, otherwise diseases of the nervous system that flow out of syphilis would not develop. Since that time I have sought to inquire carefully into the treatment that has been given to patients who have come under my observation seeking relief from syphilitic diseases, especially tabes, general paresis, syphilitic spinal paralysis, pachymeningitis, disseminated cerebrospinal syphilis and cerebral and spinal thrombosis at the time and soon after infection. It has astonished me to find that nearly all of them had been given iodide of potassium often in large doses in the early stages of the disease and that in the vast majority of instances, the mercury given was administered in pill form. In one hundred consecutive cases of tabes, there was a distinct history of syphilitic infection in seventy-four. The average age of infection was twenty-five; the average age when symptoms of tabes developed was thirty seven; the average duration of treatment at the time of infection was five months. These figures are not of much value in estimating the adequacy of treatment to prevent post-syphilitic disease, for a few cases that had had no treatment at all bring the average duration of treatment down very low.

A study of the twenty-four patients of this series who denied syphilis is interesting, for it shows that in many of them there were incontestable evidences of syphilis:

Sex.	Age.	Age when Symptoms Developed.	Remarks.
Male	45	42	Death from Tabo-Paresis at 50
Male	45	43	Spinal cord fluid

*Read before the Tri-State Medical Society of the States of Virginia and the Carolinas, January 25th, 1910.

			shows marked lymphocytosis
Male	37	36	Marked improvement under mercurial injections.
Male	44	40	Optic type of Tabes.
Female	46	46	10 miscarriages—improvement under injections.
Male	53	45	Death from exhaustion at 57.
Male	43	40	Wife had had several miscarriages. No living children.
Male	55	40	Marked improvement from taking mercurial injections.
Male	44	42	Improved while taking mercury.
Male	47	39	Heavy smoker and sexually intemperate
Female	42	40	Severe attack of malarial fever at 42—congestion of brain.
Female	32	32	Said to have developed after shock in car accident—died at 37. Coroner's case.
Male	49	32	Heavy smoker.
Male	49	44	Wassermann reaction positive.
Male	43	38	Heavy smoker and drinker. Arteriosclerosis.
Male	55	51	Grippe at 48.
Male	38	35	Wassermann reaction positive.
Male	40	35	Wassermann reaction negative.
Female	30	27	Sexually intemperate. At 35 greatly improved.
Male	34	31	Wassermann reaction positive.
Male	43	42	Reported improved.
Male	43	40	Improved.
Male	35	32	Wassermann reaction positive.
Male	40	33	Wassermann reaction positive.
Female	38	34	"Malaria" when first married. "Shingles" at 28.
Female	24	21	Has symmetrical scars on body.

It is impossible to determine the treatment which patients with general paresis have had with as much accuracy as one can determine it in tabetics. The mental state of many of them is such that slight reliance can be placed upon their statements. This accounts also for the fact that a history of syphilis is not obtained so often as in tabetics. In one hundred consecutive cases seen in hospital and private practice acknowledgement or history of syphilitic infection was got only in sixty-three instances. In many of those in which there was no history of syphilis a positive Wassermann reaction was obtained.

In thirty-eight cases of that form of subacute and chronic myelitis known as syphilitic spinal paralysis, a history of infection was given in thirty-one instances. The Wasserman reaction was positive in five of the remaining seven cases, and in three cases the diagnosis was made though there was no history of syphilis, this before the Wassermann test was discovered.

Of these thirty-eight cases nineteen had received treatment for nearly a year, seven had received no treatment after the local manifestations had disappeared and five had treatment for a few weeks. In every instance in which an intelligent account of the treatment given could be obtained, it was learned that iodide of potassium had been taken

In many cases iodide was administered from the day that the patient put himself under the physician's care. To cite a few instances: Mr. X., seen at the request of Dr. J. F. Erdmann for symptoms of brachial neuritis. When 28 years old he had syphilitic infection, the ordinary local lesion and consulted his physician in Mobile. The physician cauterized the lesion, gave him pills, one to be taken three times a day, and a salt tasting medicine ten drops in a dose, which was to be increased to sixty drops three times a day. This was continued for six months, the medicine being diminished or interrupted when disagreeable symptoms arose. At the end of that time, he was advised to continue the medicine for another six months.

When he was 38 years old, he was operated upon for an acute inflammation around the caecum; the wound did not heal. At this time Dr. Erdmann was asked to give an opinion concerning his condition, and suspecting that the antecedent syphilis had something to do with the retardation of his recovery, advised mercurial injections, and soon after asked me to see him, because of the symptoms mentioned above. The Wassermann reaction was positive after some weeks, despite intense mercurial treatment. Within six months he had recovered, and now a year later, the Wassermann reaction is negative, and there is no evidence of disease of any kind.

Another case, a man now 30 years old became infected with syphilis when 24. Almost from the beginning he displayed phenomena of great depression and self concern. Within a year he tried to commit suicide, and within two years he had evi-

dences of tabes with such mental symptoms that it was thought it was in reality taboparesis. His mental symptoms subsided, and now he is an example of true tabes. His physician stated he had treated him for the original infection with mercury and iodide and had him more or less constantly under such treatment, but it could not be determined that any manifestation of such medication had occurred save iodism.

A third case is that of a young man with syphilitic spinal paralysis. He contracted syphilis during his college days. He consulted a physician at once who, he writes, gave him "mixed treatment" for nearly two years. Symptoms of subacute myelitis developed when he was 29 years old. He has practically completely recovered under intensive mercurial treatment.

I could cite a great number of such instances as these. In fact, I may say that I have been forced to conclude that syphilis has been and is treated in this country today not with mercury, as many teachers of this branch of medicine say it should be treated, but with mercury and iodide of potassium, the former administered in a desultory and inadequate manner, and if I may be permitted an opinion based upon an experience with patients from all parts of the country more reliance is placed upon the iodides as a curative agency than upon mercury.

"Students are very rarely well instructed in syphilis; they are almost never thoroughly instructed," say Osler and Churchman (Osler's Modern Medicine, volume 3, page 503). If this is true, it may account for the fact that syphilitic nervous diseases seem to be increasing rather than decreasing. It would seem to me that the chief explanation for the occurrence of syphilitic nervous diseases is that the specific action of mercury in syphilis is not generally accepted or believed, and that there is an inherited and acquired belief that iodide of potassium has a specific action in syphilis, and this in face of the fact that most modern syphilographers of the present day, especially in this country, are emphatic and direct in maintaining that the former is the real specific in the disease. Amongst these, Piffard is the most conspicuous example. As early as 1876 he pointed out that mercury was the agent that cured syphilis, while iodide of potassium was the vehicle which removed some of the manifestations of syphilis. It would seem now to be proven experimentally by Roux and Metchnikoff, who have succeeded in inoculating anthropoid apes, that the effects of the inoculation could be prevented before the virus gained entrance to the general system by the application of mercury. In other words, that mercury applied locally destroys the spirochætæ. They even go so far as to say that mercury is a greater specific against the local disease than against the general disease.

I cannot enter into a discussion of this subject here, because it would necessitate citation of the experiments of Neisser which seem to show that injections of mercury immediately after the inoculation of the syphilitic virus prevents neither the development of a chancre nor the general distribution of the virus throughout the body. It would also necessitate opening that interminable inquiry: whether the chancre is a local or a constitutional manifestation; or put in another way: when does it cease to be the former and become the latter? Finally it would necessitate a review of a similarly unanswered question: When shall the treatment of syphilis be begun? It would be fortunate if we could forget and unlearn all we have been taught by tradition concerning these matters, and begin with our present day means of acquiring information concerning them. I assume that it is admitted today that the organism of Schaudinn may gain entrance to the system in various ways, and that at the point of entry, neither the chancre, chancroid, preputial herpes, venereal wart nor gonorrhœal inflammation need exist. Furthermore, that one of these and more particularly the sore known as chancre not only marks the focus of infection but that its secretions contain the spirochætæ which can be detected by suitable examination. This being a fact, the time to begin the treatment of syphilis is when the spirochætæ are found and the substance with which to treat it is that which has a specific action upon the spirochætæ: mercury. Now, so far as I am able to determine by examination of the work of the authorities it has not been shown that iodide of potassium has any specific effect upon the organisms. Since the days when its use was first popularized by Ricord, it has been stated and restated that it is mercury which cures syphilis, iodide which erases the symptoms. When I state that the iodide of potassium is not an antisyphilitic agency, I do not mean to contend that it is not useful in the treatment of syphilis and of wondrous efficacy in overcoming some of the manifestations of syphilis, particularly so-called gummatous formation. It would be folly to deny what is not only common knowledge of all physicians, but what is every day being demonstrated anew. No more do I mean to deny that, in certain cases of malignant precocious syphilis, the disease does not yield to treatment until iodide of potassium is added to the medication. But because iodide of potassium is a

most potent and sometimes marvelous agency to cause absorption and dispersal of an exudate which is pathognomonic of the existence of spirochætæ, this is no evidence that iodide of potassium has any action upon the spirochætæ themselves. Though a certain chemical may, for example, negative the action of, or dissolve and dissipate a substance which is formed in a reservoir, polluting the water to the detriment of all who drink thereof, it does not follow that that same chemical scattered lightly upon the soil of forest and hillside from which the reservoir drains its supply will prevent the formation of the deleterious substances.

I venture to believe that iodide of potassium is not an antisyphilitic agency in the strict sense of the term. There is no evidence that I have encountered to indicate that it has destructive effect upon the spirochætæ. I am aware that there are certain cases in which the Wassermann test continues to give positive reaction until iodide of potassium has been added to the medication, but that does not prove that it is inimical to the life of the spirochætæ. Nor am I aware that satisfactory evidence has been offered to prove that antibodies disappear under the use of iodide of potassium alone. Furthermore, I am of the opinion that not infrequently the use of iodide of potassium during the early stages of syphilis is deleterious in so much as it impairs the patient's vitality and interferes with that condition upon which the cure of syphilis is dependent: the reaction which takes place in the patient's tissues through the administration of the curative agency: mercury.

The other point that I wish to make is that so long as it remains the custom which it would seem is now well nigh universal to administer mercury by the mouth, we cannot hope to know whether or not a sufficient amount of mercury is absorbed to successfully combat the action of the spirochætæ and to annihilate them. The occurrence of ptyalism and other disturbances of the digestive tract is no indication that mercury is being taken in doses adequate to combat the disease. Many individuals present such indications of the toxic effects of the drug before any considerable quantity is taken. An idiosyncrasy to the drug or an intolerance of it, does not signify that the system is impregnated, yet how often we find in the history of a given case that on the occurrence of such symptoms the amount of the drug was materially diminished or some other substance substituted for it. We cannot possibly know how much mercury is absorbed into the system unless we rub it through the skin or introduce it hypodermatically. In that way alone can we judge how much mercury is being put into the system, and satisfy ourselves that an amount has been absorbed adequate to cure the disease or kill the spirochætæ pallida.

The adequate treatment of syphilis is not the administration of so many grains of mercury and so many ounces of iodide of potassium, nor yet is it encompassed by "taking mercury for a year and potash for six months." It is encompassed by getting such sufficient amount of mercury into the system as will prevent the propagation of the specific organisms and the formation of the antibodies, and the way to tell if this is being accomplished is by the application of the Wassermann test. Not until we get repeated negative reactions are we justified in discontinuing mercurial treatment.

Finally, the individual who has syphilis is an important factor to consider if it is our ambition to cure syphilis and to prevent syphilitic nervous diseases. How many of them, even the most intelligent, appreciate that it is of vital importance to receive prolonged, and oftentimes debilitating and distressing treatment? Now that we have a safe therapeutic test in the Wassermann reaction every patient should be imperatively urged to submit himself for such examination at least once a year for five years after he is discharged by his physician.

In conclusion, I wish to state my belief based upon my entire experience and the consideration which I have given to the disease and its sequelæ from a theoretical standpoint, that we shall be able materially to diminish the occurrence of syphilitic nervous diseases by advocating the use of mercury as a specific for syphilis and depreciating the use of iodide of potassium save as an absorbifacient of gummatous tissue.

It is no part of my purpose to decry the therapeutic property of the salts of iodine. Were it so, I could marshal an array of facts to prove their injuriousness when given in comparatively small doses (40 to 60 grns. a day) for a protracted time. I appreciate the therapeutic possibilities of the iodides, but I am convinced that the therapy of organic nervous diseases, save gummatous formation upon and within the nervous system, would be more satisfactory if the salts of iodine were no longer in use.

The Heart in Lobar Pneumonia.

By Greer Baughman, M.D., Richmond, Virginia,
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von Jurgenson in 1874 called attention to the importance of the heart in pneumonia

and the necessity of keeping it in good shape so that a fatal termination of the disease might not occur.

The Mortality Statistics of 1908 issued by the Department of Commerce and Labor gives the mortality of pneumonia (Lobar- and Unqualified) in the registration area as 98.8 in 100,000. This was the lowest record from 1901 to 1908. The same table gave typhoid in 1908 as 25.3 in 100,000.

It is impossible to obtain statistics upon the number of deaths in pneumonia that might be directly attributed to the heart and circulation. But the clinician knows that most of his deaths in pneumonia are "Heart Deaths." The danger from circulation changes does not cease when the patient is well of his pneumonia. It is, however, not the purpose of this paper to enter into that phase of the subject but rather to discuss the heart and circulation during the course of the disease.

The danger from the heart may be:

a—Mechanical—that is dilitation due to overwork in attempting to press the blood through a partially consolidated lung.

b—Degenerative—where the heart muscle is changed by the toxic products of the pneumococci to such an extent that it can no longer perform its duty.

c—Inflammatory—in which we would have a direct infection of the pericardium, myocardium, or endocardium with the pneumococci.

d—Cardio-vascular—where the changes would involve the circulation as well as the heart.

In order to help in the solution of the problem we must first find out what causes the heart to beat, as it is the interference with the circulation that causes most of the deaths in pneumonia.

von Ebner and M. Haidenhain have demonstrated that the muscle of the heart might be considered a sincytium from one end of the heart to the other. It is a continuous mass of protoplasm uniting with itself by little branching arms. We know that the heart muscle is innervated from the vagus and sympathetic. The vagus is the cardio-inhibitor while the sympathetic is the cardio-accelerator. In addition numerous ganglia have been found constantly present in the heart muscle.

Galen and Harvey believed that the instigator of the heart beat was the heart muscle itself.

The eighteenth century brought little new in regard to the physiology of the heart.

In the early part of the nineteenth century the Weber brothers, studying the vagus nerve along with Legallois and others, believed that the central nervous system was the starter of the heart beat.

It was the great Bichat, who gave forth the idea in 1800 that the heart was started and was dependent upon the ganglia. When Remak in 1844 found the ganglion, which has received his name, at the junction of the sinus with the auricle in the frog, the ganglionic origin seemed to be proved.

Engleman, influenced by his experiments on the rythmatic contraction of the ureters, which contain in part no demonstrable nerves, brought forward the old muscular origin again.

Gaskell in 1881 to 1883 added emphasis to Engleman's work. He found that the contractions in the frog's heart begin in the sinus venosus around the large veins; this contraction passes downward until it reaches the tip.

The cause of the heart beat is katabolism in the heart cells themselves and depends upon the calcium, sodium, and potassium salts circulating in the blood.

The heart beat might be likened to a horse being driven. The whip that urges him forward is the sympathetic, the reins that hold him in check is the vagus, while the horse is the heart muscle with independent power of movement.

We see then that the key of the situation, so far as the heart itself is concerned, is the myocardium.

The muscle of the right auricle is about 1-12 of an inch thick. Its capacity is rather greater than the left auricle with its ⅛ of an inch of muscle wall. The right ventricle, which does nothing else except propel the blood through the lungs. is ⅓ the thickness of the left, which supplies the rest of the tissues as well as the lungs.

When it is remembered that the capillaries of the pulmonary have only the pressure of a few cells and the air upon them, and when we consider how the capillaries of the arteries burrow down deep into all sorts of tissue more or less solid, we must conclude that the healthy right heart ought to be able to do vastly more work than it does without any embarrassment.

In pneumonia, however, we are not dealing with a normal heart. The toxemia from the pneumococci, along with the high temperature, must at least cause a cloudy swelling of the heart muscle.

If the right side of the heart were overworked, whether the muscle were degenerated or not the right ventricle would dilate. This would be followed by dilitation of the right auricle. While acute dilitation of the heart does occur in pneumonia, it is doubtful whether it happens as often as is commonly thought. A. Frankel states that it cannot be found in all serious cases, while Petzold records 271 cases of pneumonia without a single dilitation of the right heart.

The apparent dilitation of the heart to the right of the sternum may be accounted for by the retraction of the lung over the heart, due, according to Jurgenson, to shallow breathing. Under this condition the elasticity of the lung only partially filled with air would cause the lung to contract. Again a consolidation of the left lung or effusion in the left pleura might push the heart bodily to the right of the sternum and simulate dilitation of the right side of the heart.

If we would withhold our diagnosis of dilitation until the second pulmonic was first accentuated then muffled, until the clinical picture of cyanosis, great dyspnœa, increased activity of the respiratory muscles was present, we would no doubt diagnose less right heart dilitations in pneumonia.

Endocarditis occurred in 16 of Osler's 100 autopsies of pneumonia. In 209 cases of endocarditis from the literature 54 accompanied pneumonia. While in Wells collection of 517 cases there was an antecedent history of pneumonia in 22.3%. It is twice as common in women as in men. Three-fourths of the cases are ulcerative in type. The left heart is the most common seat of lesion, but the right heart is more frequently diseased than is the case in other varieties of endocarditis.

In a series of 11 cases of chronic endocarditis reported by Billings eight were caused by the pneumococcus, while three were due to the streptococcus. These cases were proven by blood cultures made during life in every case except one where the bacteria were taken from the heart immediately after death.

In almost every case of pneumonia, particularly in the latter part of the attack, we have heart murmurs. These by no means indicate endocarditis. They are usually functional. Ballinger believes that a fatal termination of pneumonia is due to blood destruction and consequent oligæmia. Endocarditis during the course of pneumonia means a direct infection with the pneumococci. Acute endocarditis occurred only 5.8 times in a series of 2,693 cases as reported in Osler's Modern Medicine.

Acute pericarditis, either serous, plastic, or purulent occurred 268 times in 2,128 autopsies (12.6%). It may occur as infection by the pneumococci from the blood, lymph, or by direct extension from the consolidated area in the lung. Among 207 cases 125 (60%) died. In 55 fatal cases of pneumonia Satterthwaite found that in ten instances death was directly attributable to pericardial trouble.

As to the myocardium Zwaschkewitsch showed in 1870 that hearts of animals exposed to a high temperature for a considerable time showed cloudy swelling of the muscle fibres. Litten, Naunyn, Nosaroff, Werhovsky, and Welch found that animals exposed to a temperature of 40° C. for a considerable time showed not cloudy swelling but fatty degeneration of the heart muscle.

Probably every case of pericarditis produces by continuity a myocarditis.

Some of the cases of endocarditis infect directly the myocardium.

It is hard to imagine a case of myocarditis that is not infected from the endocardium or the pericardium. Passler says he has never seen a case of myocarditis arising from pneumonia.

We have in every case of pneumonia a cloudy swelling or fatty degeneration of the myocardium, but a true myocarditis is very rare.

If we exclude the rather rare cases of death from cardiac emboli, although infection does occur in about half of the cases of pneumococcic endocarditis, then death in pneumonia on account of the heart alone must come from myocardial degeneration.

It is very difficult to produce a lung pneumonia in animals. Wadsworth, however, after partially immunizing animals succeeded in producing a localized pneumonia. He believes that man is partially immunized to the pneumococcus and that is why the process is localized in the lungs, in spite of the fact that even in man the pneumococcus has been demonstrated in the blood in 91% of the cases of 175 examined by Rosenow.

Passler and Romberg believe that the danger in pneumonia on the part of the circulation is not primarily mechanical because of the exudate, nor alone because of heart inflammations or degenerations, but because of toxic paralysis of the vaso-motor centers in the medulla oblongata with the consequent dilitation and bleeding into the splanchnic areas. Passler believes that the severity of the infection is the cause of the complications and death in pneumonia.

As to the blood pressure in pneumonia different observers have found very different results. Zodek, Christeller, Ekgren, Hoyoski, Kauffman and de Barry, and Forchio found hypotension; Cook, Briggs, Gilbert, and Castaigne found hypertension. Gigliosi in 50 cases found slight pressure in favorable cases, while a sudden fall occurred coincidently with acute heart dilitation. Neither Hensen nor Mosen found a fall of pressure at the time of crisis. Janeway found considerable variations. He says: "When one pictures the possible causes of variation in lobar pneumonia, the difference in individual reaction to toxemia, in extent of lung involved, the motor restlessness of some cases, the urgent dyspnœa

of others, and the great likelihood of an asphyxial rise of pressure when cyanosis is extreme, there is little wonder at the somewhat discordant results."

My cases have all showed some variation but have in the main been of the hypotension variety.

Romberg and Passler were able to demonstrate on animals that the apparent collapse, the rising of the blood pressure, which both could be demonstrated at the height of the clinical picture was due to the paralysis of the vaso-motor centers in the medulla oblongata, while the heart was normal. Even when the pulse was very small, there was no dilitation of the heart, no œdema, no passive congestion of the spleen or liver. The blood was in the splanchnic vessels. They demonstrated that in guinea pigs that this picture could be obtained only when the pneumococci were found in contact with the central nervous system. They concluded that the course of the disease depended entirely upon the severity of infection.

Solwzoff was able to demonstrate by obtaining the blood pressure of the femorals in a series of 12 cases, 5 from 16-20 years old, 4 from 20-30 years old, 3 from 46-56 years old that the weakening of the circulation in pneumonia was most noticeable 2-3 days after the crisis.

The clinical picture produced by the symptoms of vaso-motor paralysis as set forth by Forcheimer is: "The first evidences are rapidity of heart and sinking of blood pressure; with this or shortly afterwards there comes tympanites. The patient then presents an exsanguinated appearance with beginning evidence of collapse; the pulse becomes irregular, empty and so rapid that it cannot be counted; symptoms of cerebral ænemia begin to appear—delirium, hallucinations, sometimes great restlessness; they gradually disappear to be superceded by stupor and coma; the collapse increases; the heart beat becomes more irregular; the heart sounds disappear and the patient dies."

26 N. Laurel St.

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Arteriosclerosis—A Plea for its Early Recognition and Treatment.

By Dr. Jno. C. Walton, Richmond, Virginia.

Arterial sclerosis, or general arterial fibrosis, is the most frequent cause of death, in fact, it is the cause of the majority of deaths after 50 years of age, this condition strikingly verifying the truth of the old adage that "a man is as old as his arteries" and vice versa.

Etiology.—The exciting cause of the fibrous changes in the arterioles is usually some form of toxemia, such as gout, alcoholism, syphilis, malassimilation, disorders of the liver and intestines, over-indulgence in eating and drinking, the excessive use of tobacco, mental anxiety, worry and strain, the strenuous life, etc., etc.

Symptomatology.—The earliest and most important symptom is the increase in arterial pressure, which can be easily determined by the sphygmonometer. This instrument gives early and accurate information of pending changes that are not obtainable by other measures, and it should be used as a routine method of diagnosis in all cases, in the young and the old.

The earliest signs of high arterial pressure are a long or reduplicated first sound, heard over the interventricular septum, and an accentuated second sound.

The blood condition, which produces the high arterial pressure, is the primary condition and is not secondary to the deficient renal excretion, as heretofore held.

It is unimportant which part of the anatomy has farthest advanced in the pathologic process, whether it is cardio-vascular,

*Read before the Tri-State Medical Society at Richmond, Va., February 15-17, 1910.

renal, cerebral, apoplexy or paralysis, the essential underlying causes are the same and increased blood tension seems to be a premonitory condition and the forerunner of all subsequent disturbances in this vicious chain of cardio-vascular renal disease.

"The cause of this high tension has been variously attributed to increased nervous activity, to hypertrophy of the left ventricles, which, however, is generally compensatory to overcome the increased arterial pressure; to the circulation in the blood of toxins absorbed from the intestines, which irritates the vessel walls and the central nervous system; to toxins retained in the blood from insufficient excretion by the kidneys, to a higher secretion of the vaso-constrictor element of the suprarenals, or to a relative increased secretion from these glands at a period of life (after 50) when the thyroid furnishes a diminished secretion and therefore less vasodilator stuff."—Editorial from Journal of the A. M. A.

While it is impossible to prevent the serious conditions that have already occurred, viz., acute illness, syphilis, mercury and lead, it is possible to prevent the continuation of causes that are continuously acting in the individual patient, such as alcohol, tobacco, over-eating, intestinal indigestion, and the nervous tension caused by excessive mental labor, or the strenuous life that the patient may be leading.

Treatment.—Regulation of the diet and habits is of the utmost importance. Elderly persons require much less food and frequent small meals are better than larger meals at longer intervals.

Meat should be restricted to one meal a day, and teas, coffees, beers and alcoholics absolutely prohibited. Water drinking requires regulation, a moderate amount only being allowed in full-blooded and plethoric conditions.

Mercurial.—Purgatives are often indicated, and in extreme cases venesection to relieve urgent symptoms and to give time for the action of other remedies. In cases of chronic nephritis a salt free diet, as these patients do not excrete sodium chloride well. A daily warm bath at 95 degrees for ten minutes, cooled down a few degrees before leaving the tub, to insure reaction and to close the capillaries. The electric light bath is to be preferred when accessible, and when followed by the warm douche, has a most pronounced effect in reducing the hypertension and in increasing the elimination of waste products.

The most rational remedy, and the one remedy that comes nearer meeting the pathological conditions, present in this disease, is the d'Arsonval current. This current profounding effecting as it does the chemical processes of the body, increasing tissue combustion and oxidation and facilitating the elimination of waste products, nitrogenous debris, which would otherwise form uric acid, is converted into urea, and the peripheral circulation is increased through vasomotor stimulation and regulation.

It is of the utmost importance that a current of the highest possible tension be employed, and to secure the best results it is necessary to produce a current that in its passage through the tissues will develop fluorescence.

In 20 minute seances the blood pressure is reduced from 5 to 20 m.m., the functional activity is stimulated, and the proper relation between waste and repair is better maintained.

I use a static high frequency apparatus, containing the d'Arsonval, Tesla, and Oudin coils, excited by a 20 plate Wimshurst Holtz static machine, running at high speed, and I usually give a current of about 300 m.m.

My experience with high frequency current is that it uniformly reduces arterial tension, improves the general health and increases the urinary solids, as proven by many urinary analyses. This I regard as the most favorable indication of returning kidney competency.

While, as we all know, that high frequency can be obtained, either from a coil or a large static machine of 16 or 20 revolving plates, my own personal experience and my observation of the work of other clinicians incline strongly to the belief that the high frequency from the static machine is of a superior quality, and that you get better results than from the coil.

I have records of more than 50 cases treated by the above methods with the most gratifying results; even the advanced cases were very much relieved and benefited; it invariably reduces the hypertension to the normal, increasing the elimination, and the urinary solids in the old cases of nephritis, that had been accompanied for a long time by a persistent low specific gravity of the urine.

One of the most striking effects of this current, even in the advanced cases, is the relief of the distressing symptoms and the improvement in the general condition, and the subsequent feeling of well being and comfort.

Mr. L. Banker, age 60, had been ill for several months with angina pectoris, dyspnœa so distressing that he could not walk across the street without great distress; insomnia, emaciation, face pinched and drawn, tension 193, hypertrophy of left ventricle, albumen in urine.

Diagnosis, arteriosclerosis of the coronary

arteries, this diagnosis being confirmed by the eminent clinicians who referred the case to me and who had given him the usual orthodox treatment without any effect whatever on the progress of the disease, and they had informed him as to the very serious nature of his condition.

Was admitted to my sanatorium Nov. 20, 1909, and was given daily treatments of autocensasion for twenty minutes, and also at several hours interval an electric light bath for ten minutes followed by a warm douche for two minutes. In three days tension was reduced to normal (160) and all the symptoms relieved and dissipated. Patient was kept under treatment and observation until the latter part of January, when there really seemed no excuse for keeping him any longer, and he has resumed his old strenuous life and feels perfectly well in every way and seems to be entirely restored.

In conclusion, from my own experience for a period of more than two years based on a large personal experience, and also upon the work of prominent clinicians of New York, Boston, Washington, Chicago, Baltimore, Williams, of London, and d'Arsonval, of Paris, have demonstrated and proven beyond all cavil that high frequency represents the most advanced and the only reliable means so far known to science that offers any hope whatever to the victims of arteriosclerosis who in numbers are almost like unto the stars or the sands upon the seashore.

Rupture of the Uterus, Laparotomy, Recovery.*

By Wm. A. Graham, M.D., Durham, N. C.

As obstetrical accidents are ever liable to happen and transform an apparently simple condition of affairs into a serious one, the following case is presented in the hope that it may prove interesting.

Mrs. H., primipara, 25, family history negative, fourteen brothers and sisters living and well, was seen for the vomiting of pregnancy March 9th, 1909, the estimated date of confinement being early in September. The patient was a woman of medium size and weight, healthy in appearance, showing the symptoms of early pregnancy. Had missed two menstrual periods. Personal history was negative, except for moderate pre-menstrual pain. Physical examination showed no disease. There was thought to be some shortening of the antero-posterior pelvic diameter, though not enough to require the use of the pelvimeter, and as the patient has moved to Virginia, it is not possible to give her pelvic measurements.

Pregnancy was uneventful, with no dropsy, normal urine, and labor began September 1st, early in the evening. Examination showed a living child, back to the right, heart-sounds clear, and after the cervix became dilated aposition of R. O. P. could be determined. Pains increased normally and she continued in hard labor all night. Membranes ruptured spontaneously. There was not an advance of the presenting head commensurate with the suffering of the woman, due to a lack of rotation. At 8 a. m., hope of spontaneous delivery was given up, and the forceps (Simpson's) applied, with chloroform anesthesia by Dr. N. D. Bitting. Under chloroform, the head could be made out in the R. O. P. position, rotated neither forward or backward into the sacral hollow. The forceps were applied, apparently easily and firmly, but slipped off whenever the traction was enough to bring the head down. After four unsuccessful attempts, being thoroughly tired from the night's work, Dr. Bitting was asked to attempt it. Four more trials were unsuccessful. Finally, when the death of the mother, undelivered, seemed imminent, I succeeded in delivering a normal sized female infant, a "blue" baby, whose head was badly cut and bruised but not crushed. The condition of the child was desperate, improving only after an hour's effort to keep it breathing.

There was no excessive bleeding, the placenta was easily expelled by compression, and though it was known that she was badly torn, the pulse ranging from 130 to 150, rest for a few hours seemed advisable and no immediate examination was made. The uterine contractions were poor, the pulse remaining fast and weak, and reaction from the shock was hard to establish. Two hours after labor, examination showed a median perineal tear, and a rent involving the cervix, vagina and uterus, through which the left tube and ovary could be felt. Keeping up uterine contractions manually and by the use of ergot, the patient was transferred to the hospital and laparotomy performed without delay.

On opening the abdomen, several large and small blood clots were found and sponged out, and the tear found involving fully half of the uterus and vagina. This was closed with a No. 2, 20-day chromic gut with mattress stitches, and a light stitch to draw over adjacent peritoneum, and prevent adhesions to the line of suture. No special difficulty was experienced in the operation, the left ureter having been misplaced outwardly, beyond the tear, by the labor. Shock was severe, requiring active

*Read before the recent meeting of the North Carolina Medical Society held at Wrightsville, N. C.

stimulation, and no repair of the cervix or perineum was attempted. Abdomen was closed without drainage. Recovery was uncomplicated, stay in the hospital being about three weeks.

The baby undoubtedly had cerebral hemorrhage, probably dural. Was nourished by feeding the milk of a wet nurse, nursed itself on the eighth day, and after about five hundred convulsions finally recovered and is now a strong, healthy infant.

Looking backward; a healthy woman, slightly contracted pelvis, bad position, lack of rotation, presenting part high in the pelvis, it is now seen to have been a case in which axis-traction forceps were indicated. The failure to use them is regretted. However, with each application of the Simpson instruments, it seemed as if delivery would be accomplished.

The absence of predisposing causes of rupture, the absence of over-distention of the lower uterine segment, fair dilatation of the cervix, the location of the rent, and the fact that no tear was recognized when the forceps were last applied, all point to a cutting of the circular fibres by the slipping forceps, and extension of the rent by the forcible delivery of the head; so that the case might be more correctly reported as tear of the uterus rather than rupture.

As to diagnosis. Rupture may be very similar to concealed hemorrhage, and it is only by the introduction of the hand into the uterus that the diagnosis may be clearly established. The finding of the tear is the positive symptom which makes it certain that rupture has occurred and the intra-uterine examination should be promptly made when it is suspected.

Prognosis depends on several factors; mainly the cleanliness with which the labor has been conducted and the amount of amniotic fluid or other uterine contents which escape into the abdominal cavity. The prompt recovery in the case reported was no doubt due to the fact that, the rupture occurring late in labor, the fluid having been almost entirely expelled, nothing but blood was found in the abdomen, and hence there was no infection.

Carcinoma of the Rectum.*

By Gaston B. Justice, M.D., Marion, N. C.

The object of this paper is not to add one thing to that already written of carcinoma of the rectum, but to try to point out the fact that delayed finding of this condition is due to our failure to make a thorough examination.

*Read at the recent meeting of the North Carolina Medical Society at Wrightsville, N. C.

I have been impressed with the frequency in the past year with which I have met with carcinoma of the rectum, and with the exception of one case they were seen too late for surgical interference, having been treated for almost every conceivable disease of the alimentary canal and not because of the lack of training or ability to recognize the conditions on the part of the attending physician, but on account of failure to make a thorough examination. In the hurry and bustle of today we are constantly overlooking the simple and effective means by which the most of these conditions may be ascertained. It is not possible for us all to be equipped with the very latest apparatus for diagnosis of disease, but it is possible to make a thorough examination in every case, using the methods we have, and especially being satisfied that we have exhausted the direct methods of rectal examination with the history, digital examinations and examination with speculum alone this condition can always be revealed, if present.

It is in our hands, the hands of the general practitioner, that lies the hope of relief most of these patients have, and if we fail them their great suffering and ultimate end is assured.

The failure to inspect and palpate the rectum in any case where the symptoms point to the disease of the lower intestines is neglect inexcusable. There does not seem to be the slightest excuse for this condition being overlooked, for there are certain typical signs in carcinoma of the rectum, due to the fact that this portion of the bowel is easily accessible to palpation and inspection, so that disease in this region can more easily be detected than would be possible in other portions of the intestines; but it is not the rule for the rectum to have been examined, even when a number of symptoms point directly to disease of this portion of the bowel. When these cases are seen early, complaining of constipation and occasional passing of blood, we briefly examine the anal region and institute treatment for piles, when a careful digital examination would in all probability reveal the true condition, and piles prove only a symptom.

In the female the diagnosis is necessarily more difficult to decide in which part of the pelvis the growth originates, but even then we realize a surgical condition which is infinitely better than overlooking it entirely.

In the vast majority of cases the diagnosis can be made with reasonable certainty, even in its incipiency, the diseased portion being felt by the examining finger. We all know that as a routine procedure the rectum should be inspected and a digital examina-

tion made. This does not only afford reliable diagnostic information with reference to certain general conditions, as prolapse from pertussus, prolonged vomiting, and other causes of rectal tenesmus, but in addition may confirm the diagnosis in various local lesions, which are usually first found by the surgeon after the abdomen is opened, as impacted fæces, impacted gall-stones, foreign bodies, the tumor of appendicitis, tumor of interseption, bleeding polypus, etc., but some of these conditions could bear the delay caused by the neglect to examine, but with carcinoma every day's delay in finding the condition necessarily lessens the chance of radical cure, and adds to the gravity of the operation. Cancer of the intestines higher up than the rectum would be more difficult of diagnosis, as we would only be guided by the age, cachexia, the possible detection of a tumor felt through the abdominal wall and usually a sign of a chronic obstruction and the progressive downward course of the disease, but the diagnosis of a cancer of the rectum, though at times mistaken for chronic dysentery, because of pain, tenesmus, and voiding of fœted mucus and bloody stools, can be revealed by the digital examination, as an ulcerative mass, or an annular hard infiltration. This condition when recognized and operated early, according to Tutle and Finet's statistics, are very encouraging, and I think it is conceded that cancer in this region recognized early and completely operated is less apt to return in situ or by metastasis than possibly any other part of the anatomy, but delayed operation with the possibility of extending life but a few weeks or a month at best carries with it so much pain, inconvenience, etc., choosing between the results and death, one would infinitely prefer the latter.

The Value of Gonococcic Vaccine in the Treatment of Gonorrheal Arthritis.*

By W. L. Champion, M. D., Atlanta, Ga.

This will be a short paper to give the results obtained in my private work from the use of gonococcic "Vaccine" or "Bacterin". Before the introduction of the vaccine and serum there was not a drug to be relied upon to cure or I might say benefit a patient with gonorrheal rheumatism, so I hailed with delight this new remedy when I noticed the favorable reports from its use. The invasion of the joints and muscles by the gonococcus and its toxins is one of the most serious complications that follows an attack of gonorrhea. It is not unusual to see a patient confined to his bed for weeks and months and his joints permanently ankylosed.

I recall the case of a young man treated several years ago who was rendered helpless for three months by the involvement of a knee, ankle, toe, elbow, wrist and finger joints, and finally it was necessary to open and drain the knee to make it useful. Such results I have seen before the introduction of gonococcic vaccine and antigonococcic serum. Since I began the use of these remedies I have had a number of patients to suddenly develop rheumatism of a single joint with severe pain, swelling, temperature reach 101 to 103, and a single injection of the vaccine make the patient comfortable in a few hours, and five or six injections perfect a cure.

The above results with the vaccine have convinced me that it is a specific in acute gonorrheal rheumatism. While the percentage of gonococcics that develop this complication is apparently small I am convinced if we will listen attentively to the complaints made by these patients, of pains and soreness located in various muscles and joints we will convinced it is more frequent than stated. The attack may be of a mild form, lasting only a few days; the patient and doctor attributing the condition to cold or other causes when nature comes to the rescue, and the fact that gonorrheal poison has entered the circulation from the deep urethra, prostate or vesicles is never recorded.

My work is confined almost exclusively to the male side of the human family, but of the few women I have treated with gonorrhea I have not recorded a single case of gonorrheal rheumatism. This may be accounted for from the fact that the female has no prostate, as every case I have seen in the male the prostate was involved. The prostate seems to be open to engagements to send the septic material it contains through the general circulation.

During the past twenty months I have treated eleven typical cases of gonorrheal rheumatism with Mulford's gonococcic vaccine. All of the patients had severe pain, redness, swelling of the joint, elevation of temperature and rapid pulse. It is very noticable that the pulse is rapid; out of proportion to the temperature, and remains rapid after the temperature returns to normal. In all of these cases the vaccine was used in the beginning of the complication, and had not been used previously. None of the patients had other joints to become involved after beginning the use of the vaccine.

Ten of the patients were under thirty years of age, the other one forty. Of the

*Read before Medical Association of Georgia, Athens, April, 1910.

eleven cases three had a single joint involved; two had both knees; one the right foot, and the other five had three to four joints involved. Only two of the eleven cases were confined to bed; one for six days and the other for ten. In every case there was marked improvement from the first dose of the vaccine.

The dose I commence with is 25,000,000 bacteria, giving 50,000,000 on the third day, and a similar dose every four days thereafter.

In conclusion I would urge the use of the vaccine as soon as there is the slightest evidence of rheumatism developing, as it will shorten the course of the disease and lessen the number of joints involved.

313 and 314 Grant Building.

Report of Three Cases of Peripheral Operations for Tic-Douloureux.

By Parks M. King, M. D., Charlotte, N. C.

The pathology Tri-Facial Neuralgia is little understood. Some authorities claim that the lesion is in the gangelion—others that there is an ascending change in the periphery of the nerves which may be entirely in its vascularization. A great variety of remedies and surgical procedures have been advocated for the relief of this distressing condition. The most formidable of the surgical methods being the removal of the Gasserian ganglion.

On account of the seriousness of this operation it should not be performed until other methods have been given a fair trial. One of the earliest and simplest of local operations consists of exposing the offending nerve and removing it by Thierch's tortion method. The greatest objection to this method comes from the fact that sensory nerves quickly rejuvenate and that the pain which was relieved at first may promptly return.

Dr. C. H. Mayo devised a plan of plugging up the canal of exit with amalgum, lead, or silver screws. (Surg. Gyn. Obst. Dec. '06.)

I have followed his method in the three case which I report.

Case 1. Z. A. H., white, male, age 50.

For two years prior to operation he had severe attacks of neuralgia involving the left supra and infra orbital branches of the fifth nerve. To obtain relief at the time of the paroxysm, it was necessary to chloroform him. Operation was performed 31st of May, 1908. Supra and infra orbital foramen were exposed and the branches removed by the windless method. A silver screw made by a local jeweler was introduced into the infra orbital foramen and the incision closed.

The patient obtained immediate relief and has had no return up to the present time.

A guarded prognosis was given in this case as the ganglion is very liable to be involved in neuralgia of the supra orbital branch. The foramen is quite small and impossible to plug.

Case 2. Mrs. W., white, age 35.

Had suffered with tri-facial neuralgia for six months, involving the right infra orbital branch. One week prior to operation the pain extended to the right inferior dental branch. Operation October, 1908. The infra orbital nerve was removed by tortion, a small part of the ganglion being brought away with the nerve. A silver screw was inserted into the foramen. The dental canal was then exposed with a bone drill, the opening being made about the point where the nerve passes from the ramus to the body of the bone. The nerve was removed and the canal plugged with lead.

Through the same incision the gustatory or linguinal nerve was sought for, and found, as it lies close to the upper border of the body of the bone parallel to the aloeola ridge, and removed.

This should be done in all cases involving infra dental branch as it removes a possible source of reflex irritation.

The patient had prompt relief and has had no return of the pain.

Case 3. C.C. Negro, male, age 73.

Had suffered from right infra orbital neuralgia for 26 years. He was operated on by Dr. R. L. Gibbon ten years previously, and the nerve removed by tortion, but the opening was not plugged. He had entire relief for eight years, but for two years prior to his operation, November 1908, he had suffered severely. Operation performed by Dr. Gibbon and myself. The nerve was found to be as large as at the time of the original operation. He obtained immediate relief and had no return up to the time of his death in the spring of 1909, following an attack of pneumonia.

The Causes and Treatment of Rheumatic Fever.*

By William S. Gordon, M.D., Richmond, Virginia, Professor of Medicine and Clinical Medicine, University of Virginia.

Of the many diseases characterized by serious complications and consequences acute rheumatism is one of the most important. Its frequency in children, its prolonged and painful course, and its tendency to produce permanent cardiac lesions invest it with a gravity, so far as the future of the patient is concerned, which is low mortality

*Read before the Tri-State Medical Association, February, 1910.

during the attack does not materially mitigate. The more one studies the literature of the disease, however, the more one resembles the wanderer in the labyrinth of the crystal palace. It is easy to get in, but difficult to get out. The seeker after truth finds himself in a maze of conflicting or opposing theories, especially with regard to the cause of rheumatism, but is rewarded by the thought that the large majority of clinicians are agreed at least upon the medicinal treatment. Those who assert the microbic origin of the disorder and include it amongst the infections acknowledge that a specific organism has not been discovered; yet the ranks of those who have believed the cause to be perverted metabolism, with the formation of uric acid or other chemical substances acting as irritants or toxins, are being rapidly depleted. On the other hand, Haig, the most pronounced advocate of uric acid causation, makes bold to affirm that he can produce a relapse in any case of acute rheumatism by allowing the patient a diet which will throw an excess of uric acid into the joints and other vulnerable structures. The opinions of men on both sides of the argument must be carefully weighed and accorded due respect. The vital point to be settled is whether the truth is held by one or by both sides. To do justice to a discussion of this question would require a good deal of time, and I shall content myself with condensing into as brief a space as possible the result of my reading and observation.

Strong arguments have been advanced in support of the infectious nature of acute rheumatism. The young are most frequently affected. Epidemics occur without regular periodicity, and quite constantly during the fall and spring seasons. Attention hasbeen called to the resemblance in the curves of the mortality statistics to those of pyæmia, puerperal fever, and other infections. Leucocytosis, albuminuria, anæmia, rashes, and relapses are noted; and treatment has failed at a times to shorten the course of the disease. A number of clinicians emphasize the foregoing facts. Poynton, Paine, and others claim to have isolated a specific organism, cultures of which, when injected into the blood of rabbits, produce polyarthritis and endocarditis. Apert, in 1898, and Wassermann, in 1899, obtained practically the same results. According to its form the microbe has been named the Diplococcus or Streptococcus rheumaticus. In short, the large majority of observers and investigators have come to the conclusion that rheumatic fever is an infection.

Forcible and convincing as these reasons may be to some minds, we are justified in the assertion that the primarily infectious nature of the disease has not been proved. In the first place, the distinctive character of the microbe has not been established, nor will it be until an organism is discovered sustaining the same relation to rheumatism as other organisms do to the diseases with which they are respectively associated as specific causes. The production of multiple arthritis and endocarditis in rabbits by the injection of diplococci obtained from the blood of rheumatic patients does not prove that the animals were affected with rheumatic fever, since it is known that the same lesions may result from the injection of microbes which are peculiar to other infections and with which the so-called diplococcus of rheumatism may be confounded. The number of microbes found in the joints and the uncertainty as to their names and life markings make it plain that a specific germ has not been isolated. It is not surprising, therefore, that a great many observers who have discarded the uric acid and embraced the infectious theory state that the cause of rheumatic fever is unknown.

The prevalence of the disease among children and at certain seasons, the nature of the temperature curve, the resemblance of the disease to pyæmia, its apparent self-limitation, and the futility of treatment in certain cases do not nullify the arguments in behalf of the metabolic theory. It might prove interesting to consider these points at length: but time is wanting, and I can only commend to your thoughtful study the conclusions of Haig based upon a large number of experiments and observations extending over a long period. It is well to bear in mind that fever can occur in disorders of metabolism, and years ago Da Costa called attention to the fact that latent gout was one of the causes of so-called ephemeral fever. I have seen a marked instance of this in the case of a gentleman had been suffering for some days with malaise and slight fever, and whom I believed to be affected with influenza, as this disease was prevailing in his family at the time. A sharp attack of gout in the big toe led to a correct diagnosis.

With regard to the self-limitation of the disease, we are familiar with the old aphorism, "six weeks in bed and then get up"; but the wide difference in this respect between rheumatism and the known infections, and the satisfactory results of appropriate treatment, do not justify, as a rule, the calling of rheumatism a self-limited disease in the ordinary sense of the term. Undoubtedly there are cases which, untreated and under similar conditions, would run a more or less definite course and terminate in recovery;

but the same remark would apply to gout, the self-limitation in both disorders being the result of certain factors which act in metabolic disorders as anti-toxins do in the infectious.

The influence of the seasons can be explained, in a great measure, by the effect of heat and cold upon cutaneous elimination; and the especial liability of children to attack can largely be accounted for by the lessened resistance of their joints and the activity of their metabolic processes.

The supposed connection between tonsillitis and rheumatic fever does not add much to the exact knowledge of the latter disease. If both disorders be due to some kind of streptococcic infection, and if tonsillitis, especially the follicular form, be one of the forerunners of rheumatism, it is remarkable how few are the cases of rheumatism in proportion to those of tonsillitis. It may be argued that the treatment of the inflamed tonsils prevents further infection; but conceding a certain amount of truth in the argument, we find the number of rheumatic cases still small compared with the opportunities for systemic infection from neglected or ill-treated cases of tonsillitis. Nor does the study of chorea throw much light upon the cause of rheumatism, for we are as yet in the dark as to the chief cause of chorea; and the association of endocarditis with rheumatism, tonsillitis, or chorea is by no means a proof that all of these diseases have a common origin. Assuredly we are not justified in considering the three last mentioned disorders as different manifestations of the same microbe. The presumption of a primary and underlying perversion of metabolism would be more reasonable.

A strong believer in the infectious theory has stated that salicylic acid had never cut short a case of rheumatism; but at the present time the majority of the stoutest opposers of the metabolic theory bear testimony to the curative value of the drug, while a few claim it as a specific when judiciously administered. Some years ago I was called to see a young girl suffering with high fever and marked rheumatic involvement of most of the large joints. Her father, who was not a doctor, had lessened the pain and locked up the secretions with morphin. A calomel and saline purge was prescribed, followed by ten grain doses of sodium salicylate every four hours. Summoned the next morning to see the patient at once, I found her wild with delirium and hallucinations. My first impression was that the brain had become involved; but the pupils were widely dilated, the temperature was declining, and the local signs had changed decidedly for the better. The salicylate was withdrawn and alkalis and sedatives substituted. The next day the patient was rational and free from pain. The fever subsided rapidly, and in a few days no traces of the disease were left. We have in this case an idiosyncrasy with regard to the drug, and unmistakeable evidence of its specific and abortive action; for the effects obtained could not reasonably be attributed to the alkalis. The drug did more than merely to relieve the pain and reduce fever, as it may do in other conditions. I had never seen such prompt effects before from such doses, nor have I seen them since. We are all familiar with the truth, however, that in patients of unusual susceptibility, small doses of drugs will have the same effect as larger ones in other patients.

This brings us to the main point in the argument in favor of disordered metabolism as a primary cause of rheumatic fever. One writer has stated that salicylic acid is a germicide, exerting its action upon the diplococcus in the joints, gastro-intestinal tract, or blood. If so, why does it not cure pyæmia, if some cases of rheumatism are due to a mild streptococcus infection? It would be difficult to convince any thoughtful observer that the limited use of the drug in the case above mentioned produced the results by any germicidal action. Acknowledging, however, that such an action were possible, how is the action of the alkalis, of colchicum, of potassium iodide, and of hot packs to be explained? Surely not on the assumption that they are germ-destroyers. Why is it that the four leading medicinal remedies used for their solvent and eliminating effects upon uric acid constitute our main reliances in the cure of rheumatic fever? I have propounded this question to a good many doctors who believe that rheumatism is an acute infection, but, so far, no satisfactory answer has been given. The only conclusion, so far as I can see it, is that the disease is primarily a disorder of uric acid metabolism.

If the views here advanced be correct, it is easy to understand the assertion on the part of certain observers that the use of salicylic acid is either conducive to relapses, or that, for some unknown reason, relapses are more apt to follow the use of the agent than that of other drugs. That the drug cures rheumatism cannot be denied. It is inconceivable, therefore, that a remedy which cures a disease can promote its recurrence. The relapse is due to the fact that more fuel is thrown into the fire to make it burn than water to put it out; or else that sufficient water is not used to extinguish the blaze. At all events it would be wise, in the absence of definite knowledge, and so long at the patient's nutrition

can be maintained on a diet which will not cause uricacidæmia, to withhold those articles which are injurious in gout. By so doing we are enabled to employ smaller amounts of a drug that may cause unpleasant or even serious conditions, and attain our ends by measures which are at the same time reasonable, radical and effective.

That various microbes are found in the joints and other structures of rheumatic patients cannot be denied, nor is it improbable that the activity of these microbes have their influence upon the manifestations of the disease. In disorders of known specific microbic character the action of secondary or associated organisms is often observed, such as the effects of streptococcic infection in tuberculosis. The same remark applies to diseases in which perverted metabolism is the chief and primary factor in the causation.

When we reflect upon the non-contagiousness of rheumatism; upon the sterile condition of the joint effusions as found, according to Anders, in the majority of cases; upon the rare occurrence of pus; upon the marked influence of heredity; and upon the importance attached by many practitioners to a diet which, whether they intend it to be so or not, reduces uric acid production, it is difficult to escape the conviction that the specific microbe is "conspicuous by its absence". Again, what is the nature of monarticular rheumatism? Take the cases, as we frequently see them, of a wrist, elbow, ankle, or some other joint affected with heat, swelling, redness, and pain, and yielding to the usual treatment. There may, or may not be, moderate fever. The urine is often scant, deeply colored, and highly acid. Administer bi-carbonate of sodium in full doses, diet the patient, and watch the subsidence of the ailment. What kind of microbe is it that quails in these cases before an alkali? Once more; what is subacute, chronic, or non-febrile rheumatism? The kinship of these states to the acute disorder cannot be disproved, but they are not included in the text-books among the infections. From the stand-point of etiology is not this an illustration of scientific inconsistency?

As regards the treatment of rheumatism, diet holds an essential, if not the most important, place. If the disease be a pure infection, it is right to allow as much stimulating proteid food as the general condition of the patient justifies. If, on the other hand, we are dealing with over production or defective elimination of uric acid, we are prolonging the malady and endangering the patient's present and future welfare by allowing him a diet rich in nitrogen or other uric acid producers. There is a tendency at present amongst some of the profession to belittle the role which uric acid plays in the causation of disease. Haig may have gone to one extreme in his views, but his opposers, in my opinion, have gone to the other. It is unfortunate that scientific conclusions are not born unblemished and fully developed; but, constituted as the human mind is, the pendulum must swing, in the effort to establish a truth, to both extremes before it remains quiescent in the middle. Whatever be the nature of gout and rheumatism, every practical physician realizes that they are amenable to treatment provided the patient will carry out his instructions. But diet is not all. It is almost a matter of as much importance to open the doors by which the poison goes out as to close the doors by which it goes in. Hence elimination must be obtained through the bowels, kidneys, and skin. Sunlight, fresh air, and exercise must be used when practicable, while co-incident conditions, when threatening or troublesome, must be met by appropriate measures. It is needless to enter into the details of treatment.

It seems to me that the study of the disease under consideration teaches a valuable lesson in the management of infectious diseases; and this is that in the endeavor to fortify the system against the ravages of microbes, we are either prone to forget the underlying or associated perverted metabolism so often present, or else produce a perverted metabolism by the measures we adopt. For example, I have seen the kidneys damaged by forced feeding in tuberculosis; and toxic conditions, such as acetonuria, brought about by improper diet in typhoid fever. The practitioner is so intent upon overwhelming the microbes by food or drugs that he is liable to set up side-effects which are as injurious as the original disorder. Haig calls attention to the connection between fevers in general and uric acid metabolism, and the involvement of the joints. Scarlet fever is cited as an instance. The importance of indicanuria is properly attracting wide attention; and the more we study the subject of toxæmia resulting from imperfect gastrointestinal or metabolic functions, the more will we be impressed with the necessity for looking at disease in all of its complex phases and addressing our remedies to every contributing factor.

Jaundice.

"Chionia is especially advantageous in jaundice accompanying pregnancy. It should be prescribed seuesal months before partruition, and will be found an effective means of relief from hepatic pain, nausea and obstinate constipation which are often present, and so commonly described as 'biliousness.'"

Charlotte Medical Journal

Published Monthly.

EDWARD C. REGISTER, M. D., EDITOR

CHARLOTTE, N. C.

THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA.

The 1910 Meeting at Wrightsville Beach, June 21, 22, and 23.

The fifty-seventh annual session of the North Carolina Medical Society was held in the assembly hall of the Tarrymore Hotel, Wrightsville Beach, June 21, 22, and 23. Dr. George G. Thomas acted as chairman of the committee on arrangements. The meeting was very largely attended by the members of the medical profession of North Carolina and many prominent physicians and surgeons from outside of the State were present.

The visitors were welcomed to Wrightsville Beach by Hon. Jno. D. Bellamy, a prominent attorney of Wilmington. His address of welcome was unusually eloquent, and was well received. Mr. Bellamy's address of welcome was responded to by Dr. J. Howell Way, of Waynesville, whose address received many applauses. Dr. Way mentioned a great many historic features of the society in which Wilmington doctors were closely associated.

THE PRESIDENT'S ADDRESS.

Dr. E. J. Wood's address was listened to with a great deal of interest. His literary style is very attractive and his stage manners are pleasing. He expressed himself clearly and forcibly. He referred to the late Dr. J. A. Burroughs appropriately and feelingly, which was greatly appreciated by Dr. Burroughs' friends.

His address dealt mainly with the medical organization in North Carolina. He was of the belief that the plan now in existence is defective. He believes that it does not appeal to the younger members of the profession, and that it has lead to a decrease in the attendance of the older physicians at our regular meetings. His ideas about the want of intellectual activity among physicians as a whole in North Carolina is common knowledge and a circumstance that we very much regret. His suggestions about many ways to correct this were very well received.

Dr. Wood suggested that we have prearranged discussions following all papers read before our annual meetings. This would bring about a very desirable change. The next point emphasized in this address was his disapproval of the reorganization at Hot Springs seven years ago. The editor of this Journal had the same idea about the reorganization then that he has now. Personally, we were not in sympathy with it, yet it was evident that the new organization plan would be passed without any great amount of opposition, consequently there was no use to oppose it, and there is no use to oppose it now. There is no doubt that there were many valuable features connected with this plan, and a great many that did not especially appeal to us. With our new organization, however, the society has developed wonderfully, and now has about as many physicians in regular attendance as it had members then. Eight years ago, it had less than three hundred and fifty eligible members. Four years ago, when the society met in Charlotte nearly six hundred physicians were in attendance, and a membership of twelve hundred. The decrease in membership since that date is small. The little decrease in membership can be accounted for on account of the inactivity of the officials of the society, and not on account of any defect in the organization. We believe now that with the election of an entirely new staff of councillors, new life will be instilled in the different county societies and their membership will be greatly increased. A councillor ought to visit, at least once a year, every county medical society in his district. If he is not interested enough to do this, he does not deserve the honor to hold this office.

The President of the North Carolina Medical Society can, and ought to exert himself in the building up of the organization. The amount that he can accomplish in one year, if he is as active as he ought to be, will contribute a great deal toward the increase in membership.

Again referring to the organization, I have an inclination to want to make this statement. It is as useless now as it was at Hot Springs, seven years ago, to oppose it. Whether some of us want it or not, it has enough merit and enough friends among the medical profession of North Carolina to make it permanent, and it will remain permanent with occasional slight modifications regardless of any apparent opposition.

Dr. Wood referred to Dr. McCormick. We have always had the same feeling of resentment that Dr. Wood evidently has—that we are capable in North Carolina to run our own medical society, without the advice or interference of outsiders. It is quite evident that Dr. McCormick and his friends propose, whenever it is necessary, to come to our State and dictate to us how the North Carolina Medical Society ought to be run.

They now have a movement on foot compelling every member of the North Carolina Medical Society to be a member of the American Medical Association—that a physician when he joins his county society, at the same time joins the State society, and the national organization also. We don't think the medical profession of North Carolina will stand for that kind of government.

It is just this kind of Chicago medical politics that no doubt to some extent inspired Dr. Wood's thoughts along this line.

There has developed a tendency within the last year or two to do very little work on the third day of our meetings, and certainly in the afternoon of the third day. This is a tendency in the wrong direction. At the last meeting in Raleigh, and also the last meeting in Greensboro, papers were read in the afternoon of the third day until as late as six o'clock. The writer remembers well at these two meetings, prominent men from Baltimore, and other men outside of the State, read papers after five o'clock on the afternoon of the third day. This is as it should be. Whenever the programme is not carried out, no one is to blame except the president and secretary of the society. Meetings of the association ought to be carried out in a formal, business like manner, and unless they are we will soon see many evidences of sagging interest.

At Asheville, a year ago, the writer had the honor of making a motion, which was subsequently unanimously adopted, that on Wednesday of each annual meeting we would have two sections, one known as the Surgical Section, and one as the General Section. We still believe that this is a wise plan, and will afford the association all the facilities that it will need to complete its programme within three days. It will require, however, some thought, on the part of the secretary, to arrange the programme so the second section on the second day will be sufficiently full to occupy the entire time.

It has always been the writers opinion that every doctor in North Carolina ought to contribute all he possibly can toward building up the medical profession of the State, and it has always been a feeling of satisfaction, when we see a large programme. With fifteen hundred physicians in North Carolina, we ought to at least have one hundred and fifty papers prepared, read, and discussed before each annual meeting of the State Society, and it is the duty of the association to furnish facilities for them to be read with ample time for discussion.

Dr. Wood referred to too much politics in the Society. His statement that it was a great deal more honorable to read a fine paper before the Society than to be its highest official is true; however, there is no society in the world that hasn't more or less politics in it. This is an unpreventable evil. At Wrightsville, however, there were fewer evidences of politics than at any meeting the writer has ever attended. No one seemed to care who was elected President, or who received any other honor.

OUR NEW PRESIDENT.

Dr. C. M. Poole, of Salisbury, was unanimously elected President of the North Carolina Medical Society for the coming year. He occupies a relation to the society that is, in many respects, remarkable. For thirty years, he has never missed attending the annual meetings. He has been vice-president several times, chairman of the finance committee for years, chairman of the obituary committee repeatedly, and he has always discharged the duties pertaining to these positions acceptably to the association. The writer has knowledge of no one who has been more useful and more faithful to the Association than Dr. Poole. He deserves this very great honor, and will preside at the approaching meeting, which will be held in Charlotte next June, with credit to the association.

Among the papers read were the following:

"Gynecological Operations in the Aged"—Dr. J. Ernest Stokes, Salisbury, N. C.

"The Role of Infection in Relation to Diseases of the Uterus and Adnexæ"—Dr. L. B. McBrayer, Asheville, N. C.

"Experience with the Pozzi Operation for Dysmenorrhœa"—Dr. H. A. Royster, Raleigh, N. C.

"The Uses and Abuses of the Uterine Curette"—Dr. Rigdon O. Dees, Greensboro, N. C.

"A Report of Three Cases of Intussusception with Recovery in Infants Under One Year"—Dr. S. F. Pfohl, Winston-Salem, N. C.

"Conservative Gynecology, Pros and Cons"—Dr. W. O. Spencer, Winston-Salem, N. C.

"Preparation for Certain Gynecological Operations"—Dr. Henry Norris, Rutherfordton, N. C.

"Rupture of the Uterus in Labor with Laparotomy and Recovery"—Dr. Wm. A. Graham, Durham, N. C.

"Successful Treatment of Puerperal Sepsis"—Dr. Joseph Graham, Durham, N. C.

"The Management of Pregnancy"—Dr. S. B. Pierce, Durham, N. C.

"Toxæmia of Pregnancy"—Dr. W. A. Bradsher, Roxboro, N. C.

"Treatment of Hyperemesis Gravidarum"—Dr. H. McKee Tucker, Raleigh, N. C.

"Placenta Previa"—Dr. E. A. Abernathy, Chapel Hill, N. C.

"Cæsarean Section"—Dr. D. T. Tayloe, Washington, N C.

"Evil of the Midwife—the Remedy"—Dr. D. A. Garrison, Gastonia, N. C.

"The Origin of the Prescription and the Financial side of Prescribing"—Dr. C. S. Grayson, High Point, N. C.

"Old Versus New Therapy"—Dr. K. P. B. Bonner, Morehead City, N. C.

"The Therapeutic Enthusiast Versus the Therapeutic Nihilist"—Dr. Mahlon Bolton, Rich Square, N. C.

"Chloroform"—Dr. G. T. Sikes, Grissom, N. C.

"Bacterins and Serum Therapy"—Dr. Albert D. Parrott, Kinston, N. C.

"Use of Drugs Before and After Surgical Operations"—Dr. B. S. Moore, Charlotte, N. C.

"The Anesthetist a Specialist"—Dr. C. O. Abernathy, Raleigh, N. C.

"Physiology in Public Schools and Its Relation to Sanitation"—Dr. Chas S. Mangum, Chapel Hill, N. C.

"Part Played by Oedema of the Renal Cells in the Development of Anuria"—Dr. Wm. deB. MacNider, Chapel Hill, N. C.

"Some Home Office Secrets in Regard to Insurance Examinations"—Dr. J. T. J. Battle, Greensboro, N. C. Discussed by Drs. J. M. Parrott, J. P. Turner, Albert Anderson, and T. R. Little.

"The Practical Value of the Demonstration of Spirochaeta Pallada in the early Diagnosis of Syphilis"—Dr. A. J. Crowell, Charlotte, N. C.

"Gall Bladder and Stomach Trouble"—Dr. F. T. Merriwether, Asheville, N. C.

"Anatomy, Symptoms and Diagnosis Prostatic Troubles"—Dr. T. E. W. Brown, Asheville, N. C.

"Importance of Diagnosis"—Dr. J. A. Williams, Greensboro, N. C.

"Prostatic Troubles"—Dr. W. O. Spencer, Winston-Salem, N. C.

"Rectal Examination in Abdominal Surgery"—Dr. G. W. Pressley, Charlotte, N. C.

"Interesting Case Actinomycosis Cured"—Dr. Jas. M. Parrott, Kinston, N. C.

"Oesophageal Stricture"—Dr. E. T. Dickinson, Wilson, N. C.

"Stone in Kidney"—Dr. H. A. Royster, Raleigh, N. C.

"Hematuria in Appendicitis"—Dr. B. C. Nalle, Charlotte, N. C.

"What Can be Done for Relief of Urinary Discomforts of Elderly Men"—Dr. Robert C. Bryan, Richmond, Va.

"Further Remarks on Cancer Education"—Dr. Southgate Leigh, Norfolk, Va.

"The Treatment of Diffuse Peritonitis"—Dr. A. M. Shipley, Baltimore, Md.

"One of The State's Immediate Needs Shown by Legislative History"—Dr. Chas. O'H. Laughinghouse, Greenville, N. C.

"The Physician and the Public Health"—Dr. Richard H. Lewis, Raleigh, N. C.

"The Need of New Laws for the Prevention of Typhoid Fever"—Dr. A. A. Kent, Lenoir, N. C.

"The Signs of Death"—Dr. W. T. Parrott, Kinston.

"Medical Legislation"—Dr. Benj. K. Hays, Oxford.

"Abuse of the Laboratory from the Standpoint of the Laboratory Worker"—Dr. Paul H. Ringer, Asheville.

"The Value of a Concise Knowledge of Pathological Conditions in all Diseases, Especially Meningitis"—Dr. J. C. Grady, Kenly, N. C.

"The Bacteriological, Chemical, and Microscopical Evidences of Disease"—Dr. C. A. Julian, Thomasville, N. C.

"Fracture of the Astragalus, with Forward Dislocation of the Foot"—Dr. R. L. Gibbon, Charlotte, N. C.

Prophylactic Pediatrics"—Dr. J. Burton Nowlin, Richmond, Va.

"Childhood and Youth in Their Relation to Public Health"—Dr. T. A. Mann, Durham, N. C.

"The Effect of Adenoids and Hypertrophied Tonsils upon the General Health of the Patient"—Dr. Joel Whitaker, Raleigh, N. C.

"An Unusual Condition of the Hip Joint"—Dr. William Moncure, Raleigh, N. C.

"The Management of Catarrhal Pneumonia in Infants"—Dr. J. E. Ashcraft, Monroe, N. C.

"Report of Case of Inflammation of the Nasal Sinuses in Relation to the Eye"—Dr. J. D. Whitaker, Raleigh, N. C.

"Acute Gastro Enteric Infection of Children"—Dr. J. W. Halford, Chalybeate Springs, N. C.

"The Danger of Ether Anesthesia in the Tuberculous"—Dr. Wm. R. Kirk, Hendersonville, N. C.

"Traumatic Diseases of the Nervous System"—Dr. J. P. Munroe, Charlotte, N. C.

"The Sanatorium Treatment of Tuberculosis"—Dr. A. R. Guerard, Flat Rock, N. C.

"Mastoiditis in Acute Infectious Diseases"—Dr. R. G. Buckner, Asheville, N. C.

"Medical and Surgical Treatment of the Nose"—Dr. J. G. Murphy, Wilmington, N. C.

"Acute Indigestion with Report of Case" (very interesting)—Dr. G. M. Chapman, Bostic, N. C.

"The Diagnosis of Tuberculosis in Doubt-

ful Cases"—Dr. Gordon Wilson, Baltimore, Md.

"Cardiospasm"—Dr. W. O. Nisbet, Charlotte, N. C.

"Has the Tonsils any Functions? Is it a Menace to the Organism as a Focus of Infections? Is the Present Holocaust of Tonsils Necessary? Which is the Best Method of Removal When Operation is Clearly Indicated?"—Dr. Joseph A. White, Richmond, Va.

"Pain in the Area of the Fifth Nerve Caused by Irritation, Pressure, Inflammation or Pus"—Dr. W. Perry Reaves, Greensboro, N. C.

"The Submucous Resection of the Nasal Septum"—Dr. E. Reid Russell, Asheville, N. C.

"Adenoid Vegetations in the Rhino-Pharynx"—Dr. H. W. Carter, Washington, N. C.

"Report on the Strepto-Bacillus of Pellagra (Tizzoni)"—Drs. Edward J. Wood and R. Harllee Bellamy, Pellagra Commission of the State Board of Health.

"Methods Followed in Florida in Crusade against Hookworm Disease"—Hiram Byrd, M. D., Asst. Health Officer, Florida.

"Discussion of Value and Essentials of a Sanitary Privy"—C. W. Stiles, Ph. D., Scientific Secretary of Rockefeller Commission.

"Practical Means of Hookworm Eradication"—W. S. Rankin, M. D., Secretary State Board of Health.

"Distribution of Hookworm Disease in North Carolina"—John A. Ferrell, M. D., Assistant Secretary for Hookworm Disease.

"Some Obstacles that may Hinder Advancement in Sanitary and Preventive Medicine Measures"—Dr. J. W. McNeil, Fayetteville, N. C.

"The Country Doctor and Infectious Diseases"—Dr. L. B. Lancaster, Fingerville, S. C.

"Recognition and Treatment of Pellagra"—Dr. K. G. Averitt, Cedar Creek, N. C.

"Typhoid Fever, the Fluctuations in the Temperature Curve"—Dr. E. C. Register, Charlotte, N. C.

"The Village and Country Obstetrician"—Dr. Wm. Wellborn, Elkin, N. C.

"Pellagra"—Dr. R. W. S. Pegram, Dellaplane, N. C.

"The Country Doctor as a Surgeon—When Shall he Operate?"—Dr. Jas. L. Spruill, Columbia, N. C.

"Carcinoma of the Rectum"—Dr. G. B. Justice, Marion, N. C.

"The Country Doctor"—Dr. J. G. Storie, Mortimer, N. C.

"Influenza"—Dr. Edgar W. Lassiter, Rich Square, N. C.

"The Prevention of Tuberculosis"—Dr. Jas. F. Caraway, Canton, N. C.

"Mental Hygiene in the Young"—Dr. Paul V. Anderson, Morganton, N. C.

"A Peculiar Case of Idiosyncrasy"—Dr. C. L. Pridgen, Kinston, N. C.

"Prophylaxis in Medicine"—Dr. Ira M. Hardy, Washington, N. C.

"Intestinal Protozoa in North Carolina"—Dr. Wm. Allan, Charlotte, N. C.

"Treatment of Tuberculosis and its Practical Application"—Dr. I. J. Archer, Black Mountain, N. C.

"My Experience with Pellagra"—Dr. J. T. Justice, Kernersville, N. C.

"A Rational Treatment of Hypertension of the Blood Vessels"—Dr. H. B. Weaver, Asheville, N. C.

"Typhoid with many Complications, Fatal"—Dr. J. M. McGehee, Reidsville, N. C.

"Gastric Neurosis"—Dr. Stuart Mann, Movock, N. C.

"A Study of Some Parasitic Diseases"—Dr. H. A. Newell, Louisburg, N. C.

"Remittent Malarial Infection"—Dr. L. D. Wharton, Smithfield, N. C.

"Puerperal Eclampsia"—Dr. R. H. Garren, Bessemer City, N. C.

"What We Learn from Actual Experience with Puerperal Eclampsia"—Dr. J. R. Paddison, Oak Ridge, N. C.

"Intestinal Hemorrhage in Typhoid Fever"—Dr. Daniel A. Dees, Bayboro, N. C.

"Report of a Case of Artificial Pneumothorax"—Dr. Mary E. Lapham, High Lands, N. C.

"Habit Forming Drugs, Their Results and the Remedy"—Dr. S. M. Crowell, Charlotte, N. C.

"Treatment of Asthma and Hay Fever"—Dr. N. P. Coppedge, Ellerbe, N. C.

The association was appropriately entertained by the Wilmington physicians, and the local committee on arrangements, of which Dr. Geo. G. Thomas was chairman.

THE JEFFERSON ALUMNÆ BANQUET.

On Tuesday night the alumnæ of Jefferson Medical College, Philadelphia, gave a banquet complimentary to themselves and several distinguished visitors and members of the North Carolina Medical Society.

About fifteen after dinner speeches were made. While they were brief, they were well received, and many of them were full of witticisms and bright remarks that were very much appreciated by those present. Many complimentary references were made to Jefferson Medical College.

The members of the Board of Health of North Carolina as a body, were invited to attend this banquet. All of the members were present and enjoyed the occasion exceedingly.

NORTH CAROLINA STATE MEDICAL EXAMINING BOARD.

The North Carolina State Medical Examining Board completed its work at Wrightsville Beach on June the 19th, and the names of the successful applicants were announced.

Ninety-five applicants stood the examination, and of this number seventy-nine passed and sixteen were rejected. Fifteen physicians from other states were granted license through reciprocity.

Dr. L. B. McBrayer of Asheville was elected president of the Board of Medical Examiners for the ensuing year and Dr. Benjamin K. Hayes of Oxford, secretary. Honor men of the class were J. L. Adams of Asheville, R. L. Pittman of Fayetteville and W. Houston Moore of Wilmington, their standing being in the order given.

The following is a list of successful applicants:

J. W. Austin, New London; J. M. Allhands, Rutherfordton; J. L. Adams, Asheville; J. Thomas Benbow, East Bend; G. S. Barbee, Morrisville; F. L. Brown, Southport; A. A. Barron, Charlotte; C. L. Buchanan, Bakersville; L. D. Bryan, Richland; A. C. Campbell, Jonesboro; T. J. Dean, Sebrell, Va.; J. B. Dalton, Hillsville, Va.; C. A. Eaton, Henderson; T. G. Faulkner, Kinston; Y. W. Faison, Charlotte; W. H. Furman, Louisburg; W. L. Fleming, Hassell; J. R. Finney, Boonville; W. R. Griffin, Wingate; G. W. Gentry, Roxboro; C. F. Gold, Shelby; W. D. Grimes, Lexington; Oscar A. Gaitlin, Vanuboro; A. L. Hyatt, Kinston; A. L. Herring, Garland; E. B. Howles, Raleigh; S. A. Harding, Farmington; W. L. Howell, Rockingham; A. B. Holmes, Council; J. R. Hester, Wendell; O. L. Holley, colored, Edenton; J. M. Harper, Kinston; Phil C. Jackson, colored, Newbern; Sam B. Jones, Greensboro; R. J. Lovill, Mount Airy; C. E. Lyday, Penrose; A. C. McCall, Marion; C. W. McPherson, Haw River; G. H. Macon, Warrenton; S. S. Montague, Roseboro; W. Houston Moore, Wilmington; G. B. Morris, Goldsboro; W. D. Moser, Burlington; H. D. Malloy, colored, Laurinburg; E. D. McLaurin, colored, John Station; W. S. Matthews, Siloam; J. B. Nichols, Windsor; J. O. Newell, Mapleville; B. M. Nicholson, Milton; J. G. Osborne, colored, Raleigh; W. T. Potter, Edwards; Charles H. Pugh, Laurel Springs; L. N. Patrick, Gastonia; R. L. Pittman, Fayetteville; Fred D. Quick, colored, Sanford; H. Robinson, Reidsville; H. B. Rowe, Salisbury; P. R. Rankin, Charlotte; J. Robert Simpson, Oriental; T. W. Summer, Fletcher; C. N. Sprinkle, Marshall; J. A. Strickland, Wilson; R. W. Spicer, Goldsboro; T. C. Tinsley, colored, Oxford; C. J. Turvey, Charlotte; J. S. Talley, Statesville; M. P. Whichard, Hobgood; L. H. Webb, Chapel Hill; M. L. Walker, colored, Charlotte; A. M. Wooten, Jr., Fountain; Oscar Eason, Archer; J. C. Wiggins, Jacksonville; J. R. Shull, Shelby; C. O. Griffin, Rocky Mount; Walter Watson, Newbern; R. E. Summer, Fletcher; F. Jewett, Raeford; Dr. Salibe, Wilson; Dr. Strosnider, Wilmington.

The following were granted license by reciprociry: R. B. Hayes, Fayetteville; M. N. King, Durham; J. B. Green, Asheville; W. P. Herbert, Asheville; B. Starnes, Chicago; C. M. Baggerly, C. W. East Statesville; Thomas Duncan, Beaufort; N. S. Booker, Durham; B. H. Gilmer, Townsend, J. G. Gage, Linville; T. B. Mobun, Greensboro; T. Marshall West, Fayetteville; J. R. Perkins, Spencer, Va.; C. W. Stiles, Raleigh.

North Carolina has an exceptionally fine Examining Board, yet we think that many of their methods are defective. Since the reorganization of the society there is no necessity for the examiners to make their report within a month's time after the examinations. It is the belief among a great many who are interested, that the examiners ought to take more time in examining their papers than they do take—that they should be allowed to take the papers home and go over them there very carefully, and make a report within a month, the same as the old plan.

Another complaint that is quite prevalent is that the applicants are rushed through with their examinations too rapidly. The writer believes that this complaint is well founded. An applicant ought not to be required to stand but one examination per day, and it should be more thorough than it has ever been in North Carolina. Further than this, it is the opinion of many, and the plan certainly appeals to the writer, that each applicant should be examined to some extent, verbally, that the examiner should take a note of the applicant's personality, etc., and that this should be considered on the final count. For a young man to spend four years at hard work, and then for his fitness to enter the practice of medicine to be determined in the short space of time that is given him by our State Board of Medical Examiners, is not consistent with right.

The Board of Examiners should be required to give more time to their work, and be appropriately remunerated for it. Along this special line there are a great many other states that are far ahead of North Carolina.

Lately it seems that the custom has arisen

among our examiners to call in assistants, young physicians (applicants for license) to help them examine their papers. The method is unwise, and has created a great deal of dissatisfaction among applicants and the custom ought unquestionably to be abandoned.

Questions Asked.

CHEMISTRY.

By Dr. John C. Rodman, Washington, N. C.

1. Define, (a) Chemical Affinity. (b) The difference between an Atom and a Molecule. (c) An Element and a Compound.

2. Give the Chemical Names of the following Formulæ:

(1) H. Cl. (2) H_2. S. O_4. (3) H. N. O_3. (4) H_2. O. (5) H_2. O_2. (6) Ag. N. O_3. (7) N. H_3. (8) Hg. Cl. (9) Hg. Cl_2. (10) Na_2. S. O_4. (11) Na. Cl. (12) Hg. O.

3. Describe: Hydrogen, giving Symbol, Atomic Weight, Chemical Properties, and express, by a Chemical Equation, the reaction which takes place, when Zinc is acted upon by Hydrochloric Acid, Hydrogen being liberated.

4. Name the chief four elements which enter into the formation of Organic Compounds.

5. Describe in detail: (1) The "Coagulation by Heat," test for Albumen in the Urine. (2) The "Nitric Acid" test. (3) Fehling's test for Sugar. (4) Botger's Bismuth test for Sugar.

DISEASES OF CHILDREN.

By Dr. John C. Rodman, Washington, N. C.

1. Describe Symptoms and Sequellæ of Acute Atrophic (Infantile) Paralysis, and designate location of the Pathological Lesion.

2. Describe treatment (with prescription) of a case of acute Gastro-Enteritis, child two years of age.

3. Treat a case of acute Catarrhal Croup in a child of three years (with prescription).

4. Give differential diagnosis between Measles and Scarlet Fever.

5. Give the dose of the following drugs for an infant three months old: Tinct. Aconite, Phenacetine, Tinct. Opii Camphorata, Qumine, Syrup of Ipecac, Ammonium Chloride, Spiritus, Etheris Nitrosi, Comp. Spts. of Ether, Sodium Bromide.

ANATOMY AND HISTOLOGY.

By Dr. W. W. McKenzie.

1. Name the bones of the foot, and describe the inferior extremity of the Tibia.

2. Name and describe the Salivary Glands.

3. Locate and describe the Gall-bladder.

4. With what bones does the radius articulate (b) name the ligaments of wrist-joint.

5. Give origin, insertion, function and nerve supply of the following muscles: Sartorius, Sterno, Cleido, Mastoid and the Sphincter ani externus.

6. What constitutes the brachial plexus; and describe the musculospiral nerve?

7. Name arteries which supply the heart with blood and where do they originate (b) name branches of sub-clavian artery.

8. Name the abdominal viscera wholly covered with peritoneum (b) those partially covered.

9. Describe the broad ligaments of the uterus and their anatomic relations.

10. Describe the structure of the prostate gland and give its anatomic relations.

11. Describe the medulla oblongata.

12. Describe the portal system.

OBSTETRICS AND GYNÆCOLOGY.

By John Bynum, M. D., Winston-Salem.

1. Define version. Give the indications and dangers of version.

2. Describe the changes in position the uterus undergoes during pregnancy.

3. Into what stages is labor divided. Give a description of each stage.

4. What are the dangers of ergot in obstetrics? And when should it be given?

5. Define and classify Ectopic pregnancy. What are the symptoms of rupture of an Ectopic pregnancy. Give the treatment.

6. Give the physical signs of an acute peritonitis.

7. What are the symptoms of cancer of the uterus?

8. What are the relative advantages and disadvantages of the Abdominal and Vaginal Routes in pelvic surgery?

MATERIA MEDICA AND THERAPEUTICS.

By Dr. Benj. K. Hays, Oxford, N. C.

1. What is meant by an official drug?

2. Define a fluid extract: a spirit: an infusion: a decoction.

3. Select four of the following drugs and give their official, botanical and common names, the parts used, their chief official preparations and alkaloids (official alkaloids only) and state very briefly their physiological actions and therapeutic indications: aconite; belladonna; digitalis; ergot; nux vomica; opium.

4. Give the dose of—

Apomorphinæ hydrochloridum,
Hydrargyri iodidum flavum,
Cocaina,
Phosphorus,
Pilocarpina hydrochloridum,
Resina Podophylli,
Santininum,
Tinctura aconiti,

Tinctura gelsemii.

5. Give official names (Latin or English) of—

Basham's mixture,
Carron oil, (chief use)
Dover's powder, (amount of ingredient)
Gray powder,
Hoffman's anodyne,
Lugol's solution,
Mousel's solution,
Spirit of Mindererus,
Tartar emetic,
Donovan's Solution.

6. How would you treat a case of poisoning when the toxic agent was unknown?

7. Name four drugs that are specifics, and the diseases they will cure.

8. State what remedies you would use to relieve pain. Give indication and contra-indications of each.

9. State what drugs you would use to produce sleep. Give indications and contra-indications of each.

10. Write a prescription for each of the common complications of typhoid fever.

SURGERY.

By L. B. McBrayer, M.D., Asheville, N. C.

1. (a) What is pyothorax? (b) What particular infection is its most frequent cause, and (c) what is its treatment? (d) If operation, describe it.

2. (a) Discuss ascites, and (b) give some of the causes and treatment for same.

3. Describe operation for internal strabismus.

4. Describe amputation of lower leg 1 inch below tubercle of tibia.

5. (a) Define hemorrhoids, (b) discuss their paliative treatment and (c) describe the ligature operation.

6. Describe operation for resection of 6 inches of middle of ileum. (This includes preparation of abdomen).

7. Discuss shock and its treatment. Differentiate between symptoms of shock and hemorrhage.

8. (a) Give prominent symptoms of carcinoma of the cervix uteri, (b) discuss its treatment, (if operative, do not describe operation, simply name it), and (c) give the most frequent predisposing cause.

9. What are the causes, symptoms and treatment of intestinal perforation?

10. Discuss briefly the uses of the Roentgen Ray in surgery and in the treatment of superficial epithelioma.

11. Mention two kinds of suture material and describe the preparation of each for surgical use.

PRACTICE OF MEDICINE.

By H. H. Dodson, M. D., Greensboro.

1. Differentiate between Vesicular and Bronchial Breathing. What does Bronchial Breathing denote?

2. What is meant by Cardiac Compensation? Give symptoms of ruptured or broken compensation.

3. Give differential diagnosis between Peptic Ulcer and Gastralgia.

4. What approximately is the normal amount of urine in 24 hours and specific gravity? How affected by Acute Nephritis, Chronic Interstitial Nephritis, Chronic Parenchymatous Nephritis, Diabetes Mellitus?

5. In Unilateral Facial Paralysis how would you differentiate a central from a peripheral origin? Give causes. In which does reaction of degeneration follow?

6. Differentiate between Follicular Tonsillitis and Diphtheria.

7. Give etiology and symptoms of Arterio-Sclerosis and state what conditions of heart, brain and kidney are produced by it.

8. Give symptoms of Acute Intestinal Obstruction.

9. Give leading symptoms in Leukemia (Spleno-Medullary) and the blood picture.

10. Write one prescription in pill form for Anemia, using three or four drugs.

PHYSIOLOGY AND HYGIENE.

By J. L. Nicholson, M.D., Richlands, N. C.

1. Enumerate the changes, degenerative and regenerative, that take place in a neuron whose nerve fiber has been severed from its cell.

2. Define metabolism, and mention the manifestations of cell life.

3. Discuss the hydrochloric acid of the gastric juice: (1) Its functions, (2) the probable histological elements concerned in its secretion, (3) its origin, or probable nature of the chemical reaction or reactions by which it is produced.

4. What facts are suggested by clinical observation and animal experimentation as to the importance to health of the thyroids and parathyroids?

5. Discuss the phenomena of heart action: (a) as to the cause or causes of its beat, (b) as to the probable nature of its *inner stimulus* to automatic rythmical contractions, (c) as to the control of the rate and force of its beat.

6. What means of defence is afforded by the constituents of the blood against invasion of the organism by pathogenic germs?

7. What is uric acid, what its properties, and what its origin?

8. Define and state the significance or use, as the case may be, of (a) indican, (b) creatin, (c) glycogen, (d) collagen, (e) lipase.

9. Define or describe diffusion, dialysis and osmosis, and suggest certain physiological phenomena due more or less to these processes.

10. Of what food value are commercial meat extracts?

11. Suggest the prophylaxis of gastro-enteric taxæmias of bottle-fed infants.

12. Point out the measures necessary to prevent the spread of infection from a case of typhoid fever, a case of scarlet fever, a case of diphtheria, a case o f yellow fever

THE NORTH CAROLINA STATE BOARD OF HEALTH MEETINGS.

The North Carolina State Board of Health held its usual sessions. Dr. George G. Thomas of Wilmington is president. There were two sessions held. One on Tuesday evening from eight to eleven thirty o'clock and the second session on Wednesday from eleven a. m. to one o'clock p. m. During these sessions a great many things of interest were discussed. At the session Tuesday evening, after the routine of business was transacted, Dr. J. E. Ashcraft, a prominent physician, of Monroe, was elected to fill the unexpired term of Dr. J. A. Burroughs, deceased.

Dr. R. H. Lewis' retirement from the Secretaryship, a position that he held for so many years, continues to bring about many expressions of regret. The Board, however, is unanimously of the opinion that they made no mistake in accepting Dr. Lewis' suggestion about his successor. In Dr. Rankin we believe that we have a man of great ability, and a man who is especially fitted to occupy the position as Secretary of the Board of Health of North Carolina.

The value of the Wassermann reaction for the diagnosis of syphilis in its various forms seems to be universally recognized. It must, however, be admitted that the technique of the test is fairly complicated, requiring ample laboratory facilities and considerable experience for its proper performance. Of the various modifications of the reaction that have been suggested no one has succeeded in entirely replacing the original method.

The technical difficulties of the Wassermann test have been the stimulus for recent attempts to find a simple diagnostic test for syphilis based upon principles other than that of complement-fixation. During the past year several tests have been devised which must be considered as encouraging, although further investigation will be required to determine their real value.

In experimenting with various hæmolytic agents, Richard Weil found that the red cells of persons suffering from syphilis were less easily dissolved by cobra venom than the cells of normal persons or those suffering from other diseases. Upon this resistance of syphilitic red cells, Weil bases a diagnostic test which has apparently given excellent results Though the reaction seems specific for syphilis, its practical value is greatly lessened by the fact that considerable experience is required to properly interpret the results obtained.

The so-called leuco-diagnosis has been suggested by Archard and his associates as a diagnostic test for syphilis, In this procedure an extract from a syphilitic spleen is added to the leucocytes of the patient to be tested. If the patient is syphilitic the leucocytes show a greatly increased activity of their amœboid movements.

A simple procedure analagous to the tuberculin test, and known as the intradermic reaction has been tried by Nicolas, Favre, and Gautier, with apparent success. It consists in injecting into the skin a glycerinated extract of syphilitic liver, called "syphiline," by the originators of the test. A positive reaction is shown by redness and nodular infiltration about the point of injection.

Finally, mention should be made of the myostagmine reaction suggested by Ascoli, for the diagnosis of typhoid fever and more recently used by Izar as a diagnostic test in syphilis. This reaction depends upon the change in surface tension when a serum to be tested and its specific antigen are brought together. By means of an instrument called the stalagmometer a certain amount of serum of the patient to be examined is measured. The number of drops in this measured amount of fluid is then counted. The suspected syphilitic serum is then mixed with its antigen (extract of syphilitic liver) a measured amount taken, and the number of drops again counted. If the serum is that of a syphilitic it will be found that in a definite amount of fluid the number of drops will be greater in the mixture of serum extract than in the serum alone. This increase in the number of drops, or in other words, decrease in surface tension, has been used as a diagnostic test for syphilis which promises to be of considerable practical value.

THE IMPORTANCE OF BUCCAL HYGIENE.

Somebody very wise in his generation stated that "Cleanliness was next to Godliness." He might have added that it was next to good health also. One of the main places in the human organism to keep clean is the mouth. It is also one of the hardest because of its functions and because the general public will not keep their teeth clean or in good repair. Why this is it is hard to say, but the truth of the fact remains this way. Perhaps it is because they do not realize the importance of taking care of the

natural teeth or having neglected to do this, in going early to the dentist to have their neglect rectified so far as his skill can do it' The importance of the teeth, or perhaps one should say the neglected teeth, as a causative factor in disease is probably not universally recognized even by physicians. And yet what better breeding place for germ life could be imagined than the dark recesses of the cavities that exist in defective teeth? Decayed food in plenty to thrive on, moisture constantly present and no danger of any bright sunlight getting in to disturb their existence. Truly ideal soil for proliferation. Neglect of the teeth begins in babyhood. Some enemy of the comfort of babies and young children—probably a suffragette or a crusty old bachelor—gave voice to a statement that it was absolutely unnecessary to take care of the first teeth, because Nature had decreed that at a certain age anyway they must be discarded in favor of the permanent teeth. This was seized on by careless mothers as an excuse for not attending to the milk teeth. Likewise many doctors were credulous enough to accept this statement as true. Result: instead of the child getting accustomed from babyhood up to having a clean mouth and teeth and acquiring the habit of washing the mouth and using the tooth brush on the teeth at least once a day, the child grew up in absolute ignorance of this important function and later when with the advent of the second set of teeth an attempt is made to introduce this "novelty" into the daily routine rebellion is the usual result, with victory resting in but too many cases with the rebels. Also owing to the fact that the mouth is filled with decaying old teeth or the roots thereof the new teeth are hampered in their efforts to come through naturally and also ofttimes contaminated by the ruins already in possession of the mouth, causing them in turn to become diseased. This neglect of the teeth goes on involving the gums and also the inferior maxillary bones at times. From it disease may extend into the neighboring glandular structures and throat and nose troubles of every kind can be traced to bad buccal hygiene. The physician realizing the amount of discomfort and disease that comes from neglect of this kind should make the examination of the mouth a part of the routine in the case practically every patient that comes under his care and order that attention be given to whatever he finds wrong. When he finds a patient to whom the habit of mouth and teeth cleansing is as yet an unknown or an unpracticed art he should take the time and trouble to explain to the patient why such habits are beneficial.

THE REPORT OF THE BOARD OF MEDICAL EXAMINERS.

The following members of the Board of Examiners were present: Dr. J. L. Nicholson, President, Richland; Dr. L. B. McBrayer, Asheville; Dr. Jno. C. Rodman, Washington; Dr. H. H. Dodson, Greensboro; Dr. Jno. Bynum, Winston-Salem; Dr. W. W. McKenzie, Salisbury; Dr. Benj. K. Hays, Sec'y. and Treas., Oxford.

The applications for reciprocity which were in the hands of the Secretary were considered, and passed upon conditionally, it being an inflexible rule of the Board not to grant reciprocity to any applicant until he has appeared in person. Reciprocity was granted upon individual merit in each case, every successful applicant having either filled some important position of medical trust, or had many years experience in successful practice.

Drs. Nicholson and McBrayer, who as delegates from this Board had attended the Council on Medical Education of the American Medical Association and the Conference of Medical Examining Boards, made their reports. These reports filled the members of the Board with enthusiasm from three points of view. First, because of the splendid progress reported by them, which is being made in other States; second, because of the strong advocacy of the Council of Medical Education of practical examinations in every branch; third, because of the method adopted by this Board of granting reciprocity upon individual merit only having met with the warm approval of the Council.

Practical work was arranged for this meeting in Materia Medica, Obstetrics and Microscopy.

The following order of work was agreed upon:

Registration	Wednesday A. M.
Anatomy	Wednesday P. M.
Surgery	Thursday A. M.
Obstet. and Gynecology	Thursday P. M.
Physiology	Friday A. M.
Chemistry and Dis. Chil.	Friday P. M.
Practice of Medicine	Saturday A. M.
Materia Med. and Thera.	Saturday P. M.

REPORT BY COLLEGES.

College	Passed	Failed
Jefferson	11	
Chicago Medical and Surgical	1	
Uni. Col. of Med., Richmond,	5	1
N. C. Med. College, Charlotte,	10	2
Vanderbilt University,	1	
Tennessee Med.	1	2
Chattanooga Med.		2
Knoxville Med.,		1
University of South	1	2
Leonard, Raleigh,	5	3

Tulane University,	1	
Harvard,	1	
Johns Hopkins,	1	
Illinois Med.	1	
Atlanta Med.,	1	
Meharry,	1	
P. & S., Baltimore,	1	1
Medical College of Virginia,	2	1
Medico Chi. of Phila.,	1	
University of West Tennessee,	1	
University of Pennsylvania,	5	
Baltimore Medical,	1	

CHILDREN: QUALITY VS. QUANTITY.

In advance the timid ones are advised to take to the innermost recesses of the deepest cyclone cellars in the neighborhood, for issue is about to be taken with our distinguished fellow journalist and fellow citizen, the Honorable Theodore Roosevelt, "the strenuous one," who advocates large families, most probably because he never was, nor can be, a mother, and know the mental and physical anguish of even the easiest labor. And also because while not rich he has a competence sufficient to keep a moderate sized family in comfort. We have not heard how heartily his own wife agrees with her husband's public utterances, nor have we seen as yet any rush in his own family to even mildly put into practice what the father advocates. We will, however, all agree with him, and most heartily, too, that childless marriages are not desirable either for the health of the wife nor the good of the community. The uterus has a definite physiological function to perform and when its activities for enlarging itself on account of pregnancy is not called upon either occasionally or not at all, statistics seem to indicate that this function works in a pathological manner in the production of uterine fibroids and other tumors. This same statement is true also, but not so definitely, where there has been but one pregnancy. Yet, on the other hand, our medical statistics also seem to indicate that multiple pregnancies, especially if very close together, upsets this physiological function in such a way that it breaks away from whatever force normally controls it and its activities are used to produce malignant tumors of the various types. Again, the production every year or so of a child is unfair to the mother, as it can only mean, with very few exceptions, a constant deterioration of health in the mother and both health and intellect in each succeeding child, because there are very few of our modern women who can stand frequent pregnancies without marked loss of strength and spirits. The physical and mental suffering is something that the anti-race suicide shouters don't stop to think about. Already our asylums for the defective and worse have too many inmates. Must we go on so that annexes will be needed? Already too many noble mothers are partial or total invalids because they have endeavored to do more than their share towards increasing the population of the earth. It is not just going through the confinement, even though in this, as every doctor knows, the nervous strain, not to even mention the physical effect, is tremendous, but through the long days of babyhood there is the constant care of looking after "the little olive branches" until they get to be such an age that they can help themselves a little. No number of paid servants can give a mother's care to a child, no matter how willing and devoted they may be; that motherly touch makes all the difference in the world. The physician, as the physician, objects to large families, because he knows that, with few exceptions, it means ill health for the mother and ill health for the offsprings caused through nervous and physical strain in the former, and in the latter owing to the condition of the former. A discussion of the social and industrial reasons for moderate sized families would perhaps be out of place here in a medical journal so they are omitted. However, the medical reasons are sufficient we think, to cause the medical fraternity to oppose "the Big Stick" in this direction. We do not know what our punishment will be for doing this, but like true medical men we are doing our duty as we see it regardless of the cost. We are alike opposed to childless and too fruitful marriages. The world needs brain and brawn, not imbeciles and weaklings. This is especially true the world over just now when the spirit of social and industrial unrest is abroad everywhere.

TO DECREASE INFANT MORTALITY.

The importance of the movement for the decrease of infant mortality cannot be overestimated. The figures are appalling. Too many editorials and articles regarding the prevention of this blight on our civilization cannot be written. Every one who thinks he has any good ideas as to how it can be brought about should not "hide his light under a bushel," but should put them forward at once. Out of all that is then spoken and written the best can finally be gotten together and put into practical operation. Meantime each and every physician must work to bring about in his own territory this much to be desired result. Yes, every physician can be and should be a factor of no mean importance in the reduction of infant mortality. He need not before beginning work in this direction wait until a world wide movement with set plans and

rules is formed. All he has to do is to make a study of pediatrics, so that he knows all about children theoretically, and then look for all the clinical chance that he can get to put his theoretical knowledge to practical use. He must study prophylaxis as well as therapeutics, and the better his knowledge of the former the less use he will have for the latter—on his own patients at least. In the larger cities through meetings of mothers brought about especially for the purpose, instruction is given in the care of infants and young children as regards their food and general hygiene. Through the public clinics the doctors and nurses in attendance distribute printed slips on the above subjects. And in their offices these same doctors instruct their private patients in the great art of keeping their children healthy. These same methods can be applied in the smaller communities, and if applied a reduction of infant mortality must result. It is up to the local physician entirely, however. On his attitude will depend the result, in the beginning at least, of any missionary work in this direction by lay bodies especially organized for this purpose. If he "pooh hoos" the idea and acts as if it were not worthy of his attention he will be responsible for the resultant poor headway the work will make in his vicinity at first, but as it sweeps on irresistably, as it must, and overcomes his either active or negative opposition it will make him a very negative quantity in his community. The doctor called to arrange for the accouchement of the expectant mother should take the trouble as routine treatment to talk over the coming baby and its care with the woman. In a few little talks he should be able to show his patient what good care of a baby is and why it pays to follow out the rules of good care. Nursing rules should be instructed in before and not after the baby's arrival. Likewise the general hygienic and sanitary rules. If the misfortune of the mother is that she cannot nurse her baby she should be instructed most carefully in the proper care of milk and how to modify it for infant feeding. The maternal instinct may mean a good deal but it is not to be entirely depended upon when it comes to the feeding of children by cow's milk. Incidently neither can the doctor who will not give it his most earnest attention. The public is willing to be educated if they see that you are a fit teacher. Nothing is nearer or dearer to their hearts than their babies and a desire to lessen the number of little tomb stones that dot our cemeteries.

ASEPSIS IN OBSTETRICS.

One of the classic papers of American Medical literature was published in 1843 by Oliver Wendell Holmes. It was entitled "The Contagiousness of Puerperal Fever." Its closing paragraphs particularly will live as long as speech survives. It will amply repay even the busy doctor to turn aside long enough from his work to read this article through, and certainly no student of medicine but that he should be compelled to read it most carefully. It was a plea for the safety of the mothers while they were performing their duty to mankind, viz.: childbearing.

Ignatz Philip Semmelweiss in 1846 rendered another signal service to mankind while working in the great maternity hospital at Vienna. He put into practical operation some observations he had made during his work in this hospital as an interne. In his maternity wards he did not permit vaginal examinations on women in the puerperal state unless a very simple preparation of the hands was gone through with, and lo and behold! maternal mortality in child birth was at once greatly reduced by the simple, almost absurdly simple expedient of washing the hands in an ordinary fashion before making such an examination. This was a great step towards antiseptic deliveries which then came into vogue later more and more as our medical knowledge of antiseptics increased and became more perfect. The next great step was from antisepsis to asepsis, and it is under aseptic precautions that confinements should be done today. It means even a lessened mortality than antisepsis because by aseptic management in the beginning and all through your labor there is no need of antiseptics at the end of it. The aseptic labor means better work by and easier work for the doctor and nurse and a vast amount more of safety and comfort for the woman in the puerperal state. It means the banishment of the unsafe douche with its unclean nozzle and the infection of otherwise clean cases by offensive interference with the healing and protective forces of Nature. It is now an established fact that the vagina is well able to take care of itself if only let alone and protected from its (would be) friends. Its protective forces are ample in most cases unless either weakened or washed out by strong antiseptic solutions. Without indications of infection, as shown by the usual symptoms, douches have no place in the aseptic labor except very late in the puerperium when a few are given as a sort of vaginal wash after the lochia. In the large maternity hospitals of the big cities aseptic labors are the rule, both on the indoor and outdoor services, and surely if asepsis can be preserved in the hovels of the unspeakable slums of our big cities it can

be preserved anywhere else on the face of old Mother Earth. Asepsis simply means cleanliness all through a case instead of uncleanliness first which later must be made harmless by antiseptic solutions. Antiseptic solutions, it should be borne in mind, are harmful to healthy tissue in many instances as well as to the infecting host. It means cleanliness by antiseptics and sterile dressings outside to prevent the introduction of unclean material inside. It means the introduction of surgically clean hands, which have been made surgically clean up to the elbow, incased in surgically clean rubber gloves for the fewest possible internal examinations during the course of the labor and immediately after it. It means that at any time in the puerperium that an examination is deemed necessary it is to be made under the strictest aseptic precautions. It means the use of surgically clean, made so either by antiseptics or sterilization, preferably the latter, instruments and dressings around the patient. It means a careful, clean doctor who believes that "Cleanliness is next to Godliness" and that "An ounce of prevention is worth a pound of cure" instead of a doctor who, to put it mildly, is, well—a little careless in his methods, therefore is afraid to trust to his style of asepsis. That's putting it very, very mildly, though.

HAVE THE MOTHERS NURSE.

All of us have heard the hue and cry that has been raised in all parts of the country and in fact in the whole world about maternal nursing becoming a lost art, and that future generations of babies will be of the bottle fed variety. When this doleful time arrives it is to be hoped that the average practitioner of the gentle art of healing be of the regular or "irregular" school know more about artificial feeding of infants than most of them do today. On the other hand what can be done now to postpone the coming of this most unnatural state of affairs when the parent is unable to provide for her offspring its physiological food at the time of birth? Much can be done by the mother herself under the supervision of her physician, and the physician can also do much by skillful direction and treatment of his patient. The treatment must be directed to a general supervision of the patient's daily life, to the general diet of the patient, and the care of the breasts before and after the birth of the child plus the eliminating of two conditions which are to be found in almost every woman to a greater or less degree, viz:—anemia and constipation, the presence of the latter perhaps being the cause of the former. Regarding diet much can be said and one very important point is to be carefully considered, and that is whether or not the efforts of physicians to make the labor easy for the mother by endeavoring to retard the growth of the unborn child so far as size is concerned, by certain dietary laws is somewhat to blame for the breasts not taking on their normal function at the birth of the child. In other words has or has not this under-nutrition of the mother a retarding effect on the formation of milk? The expectant mother has her unborn child and herself to provide for besides laying up substance for the development of the future food supply of her infant. With a lessened intake of nutrition has got to suffer. It almost seems that in most cases it is the function of the breasts. Expectant mothers should be fed on a simple diet rich in its nutrient value and sufficient for the present unusual of the mother at this time. A partial starvation of the expectant mother does not seem logical. As regards constipation, even in the usual normal state of the woman it is a source of illhealth. In the pregnant woman it is a menace to the woman and child both, because in the extreme demands being made upon the woman at this time anything that is detrimental to her at a normal time is doubly so now and assists very much in making her normal functions act at a grade below par and also detracts from the quality of the circulating blood. Both of these facts will mean a less chance for the breasts to functionate properly. The physician should see that constipation is not allowed to exist. The anemia is also a factor. A proper quantity of blood rich in the proper constituents that go to make up normal blood means a great deal, for in its circulation through the body it can give to each part the proper amount of nutrition for that particular part according to its needs at that time. Healthy organs are liable to functionate properly and normally. "A word to the wise is sufficient". We not only want the breasts to functionate but we want a good nourishing milk for the child. Again a pregnant woman who wants to nurse her child should be allowed, or rather it should be insisted upon that she lead an active, healthful life free from late hours and dissipation that fatigues excessively. The value of certain hours for rest and quiet each day should be explained to her. The value of good humor and cheerfulness is taken into account and the avoidance of the opposite of these is to be advised. Attention to the breasts is of prime importance also. Defects in the nipples must be looked for and if there are any, treated as the particular condition present demands. Daily massage for the last four or five months of pregnancy certainly helps a good

deal in developing the breasts and their function. As to the mother who deliberately states she does not want to nurse her child under any circumstances even if she is able the doctor can only earnestly and seriously explain to her the benefits accruing to the child from maternal nursing and then if the woman still refuses to undertake her natural and sacred duty to her child why———well hurry from her presence for fear your usual self control may not be strong enough to keep you from telling her some plain but unpleasant truths about unnatural mothers. You would probably lose the case if you told her your thoughts regarding her refusal to nurse when she could.

THE STRAW ITCH.

According to the Public Health Reports investigations carried on within the last year have demonstrated the occurrence within the United States of a peculiar itching eruptive disease which has been proven to be due to the attack of a small straw and grain infesting mite. It has been shown that the presence of the mite in the straw or grain is dependent on the occurrence in the straw or the grain of certain insect parasites upon which the mite preys. To the farmer this mite is ordinarily beneficial in that by preying on the insect parasites of wheat the damage to his crops by these is minimized. When, however, the mite becomes excessively abundant it will, when the opportunity presents, attack not only the laborer in the field or the thresherman in the barn, but also the unsuspecting dweller in some distant city who tries to sleep on the straw which he has perhaps purchased in the form of a straw mattress. Because of the wide variety of uses to which straw is put, the distribution of the mite and the dermatitis that it may cause are very extensive and are therefore of great practical importance, not only to the farmer but to the physician and sanitarian.

In recognition of this, Prof. F. M. Webster, who is in charge of cereal and forage insect investigations of the Bureau of Entomology, has written a very comprehensive brochure treating of the subject, however, more particularly from the standpoint of the entomologist and for the farmer. As the matter is new to the physicians of the United States, and there is reason to believe that the depredations of the mite are likely to be increasingly conspicuous, probably for years to come, it seems desirable to mention the fact that physicians can get much valuable information on this subject by writing for a copy of the Public Health Reports, June 10th edition, Washington, D. C.

EDITORIAL NEWS ITEMS.

The annual conference of the Physicians' Association of the Eighth district will be held in Monticello, Ga., on August 20.

The officers of this Association are: Dr. I. H. Goss, of Athens, councillor; Dr. J. H. Gheesling, of Greensboro, president; Dr. R. W. Trotter, of Madison, vice president, and Dr. D. H. DuPree, of Athens, secretary.

The cornerstone of the Mobile Infirmary was laid on June the 9th in the presence of an immense throng of people.

The building, when completed, will be among the finest and best equipped institution in the country.

Following is a list of the present officers of the Mobile Infirmary Association:

President, Mrs. C. J. Torrey; vice president, Mrs. Lee H. Marx; secretary, Mrs. J. St. G. Tucker; former secretary, Mrs. R. G. Richard.

Board of Trustees—Jacob D. Bloch, J. C. Bush, Godfrey Mertz, Ralph G. Richard, Ashbel Hubbard, William H. Monk, Jr., Henry F. Forcheimer, Murray Wheeler, J. W. Phillips.

The building is modelled on the pavillion plan consisting of three separate structures grouped with the central or main building the most imposing and of three stories, the wings being two stories each.

Arrangements have been made by the Board of Directors of the Macon Hospital, Macon, Ga., for many important improvements in the hospital arrangement and equipment. The changes will be made immediately and they will add a great deal to the value of the institution.

Gaffney to Have New Hospital.

At a meeting of the most prominent citizens of Gaffney, S. C., on June 13th it was decided to erect a hospital building to cost not less than $15,000. The following committee was appointed to apply to the Secretary of State for a charter: Messrs. A. N. Wood, J. A. Carroll, J. C. Jefferies, Drs. J. N. Nesbitt, R. T. Ferguson, S. B. Sherrard and B. R. Brown. More than $10,000 has already been subscribed for the erection of the hospital building.

Alamance County to Have New Hospital.

The site for a new hospital at Burlington, N. C., has been selected, and every assurance is given for the erection of a handsome hospital building at an early date.

Doctors of the Fifth Disirict Meet at Grant Park.

The Fifth Congressional District Medical Society held its sixth semi-annual meeting on Juue the 15th at Grant Park, Atlanta, Georgia.

Among some of the most important papers read and discussed were the following:

"Operations on Gasser's Ganglion for the Cure of Trifacial Neuralgia—Report of Two Cases"—Dr. E. G. Jones, Atlanta.

"Treatment of Ilio Colitis"—Dr. Charles E. Boynton, Atlanta.

"Pneumonia in Children"—Dr. G. K. Varden, Atlanta.

"Does Eating Sweets Injure the Teeth Locally?"—Dr. S. A. Visanska, Atlanta.

"Some Facts and Fallacies About Coffee"—Dr. G. N. Niles, Atlanta.

"The Mouth and Teeth During Sickness"—Dr. Robin Adair, Atlanta.

"Recent Ocular Therapeutics"—Dr. A. G. Hobbs, Atlanta.

Smallpox Epidemic in Mexico.

An epidemic of smallpox has been raging in the district of Ozumba, Northern Chihuahua, Mexico, for some time, but the real extent of the epidemic was not known until June 12th, when the people made an appeal to the Federal Government at Mexico City for medical officers and soldiers to enforce quarantine laws.

Dr. W. L. Grantham, who has been practicing medicine in Mt. Gilead, N. C., for the past three years, has recently located at Lumberton, N. C., where he will continue the practice of his profession.

Dr. Grantham is a young physician with great ability, and we feel sure that he will do well in Lumberton.

At the recent meeting of the American Medical Association Dr. Bunbar Roy, a prominent physician of Atlanta, Ga., was chosen as chairman of the section on rhinology and laryngology.

The Orangeburg-Calhoun County Medical Association met in St. Matthews, S. C., on June the 21st. Several very interesting papers were read and discussed by the members of the society.

The officers of the association are: Dr. W. L. Pou, president; Dr. Dantzler, of Elloree, vice-president; Dr. Green, of Elloree, secretary. After the meeting the visiting members were entertained at dinner.

South Carolina State Medical Examining Board.

The South Carolina State Board of Medical Examiners held its annual meeting in Columbia on June the 14th, with between seventy-five and one hundred applicants for license to practice medicine. Of this number forty-eight passed the required examination.

The members of the State Board of Medical Examiners are: Dr. Mary Baker, assistant secretary, Columbia; Dr. J. L. Napier, Charleston; Dr. A. Earle Boozer, secretary, Columbia; Dr. J. J. Watson, Columbia; Dr. R. A. Bratton, Yorkville; Dr. Joseph Maybank, Charleston; Dr. H. L. Shaw, Fountain Inn; Dr. T. G. Ellisor, Newberry, and Dr. Harry H. Wyman, of Aiken.

The following passed the examination: I. S. Funderburg, W. A. Smith, P. K. Switzer, L. A. Hartzog, S. R. Lucas, W. H. Hope, C. F. Black, D. Lyle, H. M. Graham, J. C. Nicholson, R. C. Bruce, S. C. Dean, T. M. DuBose, Jr., S. C. Howell, T. P. Kennedy, L. S. Hay, R. C. Blackburn, W. L. Heaner, C. E. Owens, C. E. Crosby, R. R. Prentiss, H. A. Pruitt, A. W. Beck, Olga V. Pruitt, L. C. Floyd, L. D. Willis, E. S. Thompson, C. P. Benson, M. H. Wyman, C. D. Hanna, J. H. Johns, M. J. Alexander, J. A. Thomason, G. A. Hennis, C. A. Mobley, E. C. Baynard, C. H. Neves, J. G. Wooley, T. L. Ayers, F. M. Routh, W. T. Lander, J. D. Colson, F. H. Bold, F. B. Sanders, E. Cooper, J. C. Hill, W. B. Newell, F. B. Rodgers, D. L. Bryson, M. G. Whitlock, M. G. Shellhouse, F. C. Brinkley, I. W. Pittman, O. H. McCord, J. A. Finger, Jr., E. A. Simons, R. L. Cockfield, D. H. Smith.

Marriages.

Dr. J. Vance Dick, of Gibsonville, N.C., and Miss Blanche Rankin, of Whitsett, N. C., were married at the bride's home on June 9th.

Dr. Dick is a popular young physician, and is making great success as a practitioner. He graduated from the Medical Department of the University of North Carolina in 1907.

Dr. and Mrs. Dick will make their home in Gibsonville.

Dr. J. H. Saunders and Miss Nannie Hayes Smith, both of Williamston, N. C., were married on June the 15th. Dr. Saunders is a very capable young physician, and very popular. He graduated in medicine from the University College of Medicine, Richmond, Va., in 1905, and received his license to practice medicine the same year. In June, 1906, he joined the North Carolina Medical Society.

Dr. D. G. Caldwell, one of the most prominent physicians of Concord, N. C., and Miss Camille J. McCorkle, of Mooresville, N. C., were married in the First Presbyterian Church of Mooresville, on June the 15th.

Dr. Caldwell graduated in medicine from the University of Maryland School of Medicine in 1885. In the same year he secured his license to practice medicine, and joined the North Carolina Medical Society.

Deaths.

Dr. A. R. Ligon, a well known physician of Wilson county, Tenn., died on May 31st at his home at Henderson Cross Roads. Pellagra was the cause of his death.

Dr. Ligon graduated from the Southwestern University Medical College, Dallas, Texas, in 1904.

Dr. Richard Joseph Nunn, an eminent physician and one of the best known Masons in the world, died in Savannah, Ga., on June 29th at the age of 79 years.

Dr. Nunn graduated in medicine from the Savannah Medical College in 1854.

Dr. R. A. Hammond, one of the leading physicians of Monroe, La., died on June the 13th, after a brief illness.

Dr. Hammond graduated in medicine from Jefferson Medical College in 1876, and since that time he has been very successful in the practice of his chosen profession.

Dr. E. Rose Dorsett, one of the most widely known physicians of North Carolina, died at his home in Salisbury on June the 16th. For a quarter of a century he had been coroner of Rowan county, holding this office at his death.

Dr. Dorsett graduated in medicine from Jefferson Medical College, Philadelphia, in 1869, and joined the North Carolina Medical Society in 1904.

Dr. William A. Martin, of Cobbham, Ga., died suddenly at his home on June 11th. He was about 88 years old.

Dr. Martin graduated from the Medical College of Georgia in 1843, and since that time has been practicing medicine in Georgia.

Book Notices.

"Education in Sexual Physiology and Hygiene"—A Physician's Message. By Philip Zenner, Professor of Neurology in the Medical Department of the University of Cincinnati. 16 mo., pages 128. Net $1.00. Carriage extra. Published by The Robert Clarke Company, Cincinnati.

This book gives some talks by the author to school children and College Boys, and, discusses the best modes of instruction in matters of sex.

The first article deals with an actual experiment in moral instruction in School. This came about through a teacher making application to the Superintendent that a physician give such instruction to her girls, whom she believed to be in imminent danger. A lady physician, Dr. Crotty, gave some talks to the girls and boys and partly to the boys alone. The result was a great moral uplift, a decided improvement of the moral tone of both boys and girls.

The author's talks were subsequently printed by the Board of Education and distributed among principals and teachers. They are reproduced in the book in full.

The next chapter in the book contains talks to College Boys. These speak of many things which the young men as well as people in general should know elementary facts in sexual hygiene, the imminence and harmfulness of bad habits, the danger of the quack, especially with reference to sex matters, and the like. The talks impart sufficient knowledge of social diseases to give a clear insight into their ill effects on the patient, his family and offspring, and to act as a deterrent. Withal there is instilled the truth of the wholesomeness and safety of continent living.

The author next deals with the best modes of imparting sex knowledge to children. Knowledge should be given when the child begins to crave it, but only so far as it can be fully understood. If this is done in the done way of biological training it should create no sensuous thought and do no harm. The whole purpose of this course of education is to forestall false and perverted knowledge coming from improper sources and to create a pure mind.

The author emphasizes throughout the great importance of giving this instruction in a way to do good and not harm. He weighs the dangers of making suggestions of ill-giving what is forbidden the alluring qualities of forbidden fruit—and of arousing fears in the child's heart, and discusses modes of preventing such ill effects.

As the author lays such great stress upon the teaching doing only good and no harm upon its leading to a pure mind and giving that knowledge which will help the individual to safeguard his future life, he insists that those who give such instruction—parents, teachers, physicians—should be thoroughly qualified for it. In the case of

teachers and physicians this usually calls for special training.

The book imparts high ideals throughout, but it is essentially a physician's message, the influence upon health being made paramount. The aim of this book is to impress upon parents and teachers the importance of sex instruction and to assist them in imparting it. But it aims even more to create a public sentiment demanding such teaching, but demanding also, that the teaching and the teacher be the best.

Abstracts of the Leading articles of the month.

The Significance of Abdominal Breathing in Heart Disease.—Rumpf (Deutsch. med. Wochenschr.) says that the physical methods of treating cardiac weakness are at present coming into their own, one important method of personal hygiene, a proper method of breathing, according to the writer has been hitherto unduly neglected. With each inspiratory act in thoracic inspiration, the pressure in the upper portion of the mediastinum, containing the auricles and the great venous sinuses, is lessened as compared with the lower portion containing the ventricles. If the heart is already weakened, with dilated auricles and engorged great veins, this diminution of the pressure in the upper mediastinum throws an additional obstacle in the way of the flow of the blood from the great veins and the auricles into the ventricles. In diaphragmatic breathing the reverse is true. The downward pull of the diaphragm enlarges chiefly the lower portion of the mediastinum and tends to suck, as it were, the blood from the veins and the auricles down into the ventricles. Moreover, each contraction of the diaphragm tends to squeeze the blood out of the engorged liver and out of the abdominal veins and, to this extent, aids the work of the heart. Accordingly, and this is confirmed by clinical evidence, abdominal breathing is distinctly more advantageoui for sufferers from heart disease than the thoracic type. Patients, especially women, who have grown accustomed to the costal type of respiration, do not readily learn to breathe with their diaphragms. Careful training in respiratory gymnastics is required.

Treatment of Syphilis.—Welander, in The Beihefte zur. Med. Klin., describes his treatment of syphilis and the principles upon which it is based. In an article published in 1894, he declared his view that the disease was caused by a micro-organism, and that relapse after disappearance of the symptoms under treatment or otherwise, was owing to the continued presence of the organism, probably in the form of highly-resistant spores; that such spores could finally develop after remaining for years in the body; that the action of toxins was seen in symptoms such as the indefinite headaches not infrequently present before and during the secondary stage of syphilis, and in the late parasyphiliitic diseases, such as tabes. The author says that late researches and the discovery of the spirochæta pallida, as the probable cause of the disease, support the views which he then expressed. His plan of treatment is to administer mercury for a period of two to three years, intermittently, but in such a manner that the patient during the whole period is continuously under the action of mercury. The method is described as being essentially a preventive and not an intermittent one. In order to carry out the treatment successfully, without injury to the patient, which would lessen his power of combatting the disease, and without intermissions long enough to deplete the system of mercury, it is necessary to investigate the rate of absorption of mercury, and the rate of elimination from the body, according as different preparations and different modes of administration are employed; the result of such investigations is given in the article. As a general rule it may be said that the preparations which are quickly absorbed are quickly eliminated. The rate of absorption of mercury given *per os* is uncertain; generally calomel is very quickly absorbed. Soluble salts of mercury injected subcutaneously are quickly absorbed, and eliminated rather slowly. The action of injections of insoluble salts varies. Salicylate of mercury is quickly absorbed and eliminated, calomel and thymol mercury are slowly but powerfully absorbed, and slowly eliminated; ol. cinereum is slowly and ol. mercurioli very slowly absorbed and slowly eliminated. The amount of absorption of mercury, applied percutaneously, varies with the extent of surface of skin treated; if the mercury is applied over a large area, absorption is quick, elimination rather slow. A practical application of these facts is seen in the author's method of treating patients with severe symptoms by injection of salicylate of mercury, in order to quickly bring the symptoms under control, combined with injections of ol. mercurioli, in order to prevent relapses. Treatment with mercury in forms which are slowly eliminated is to be avoided in the presence of nephritis, affections of the large intestine, affections of the mouth, or a de-

pressed condition, caused, for example, by malaria, tuberculosis, alcoholism, etc., that is, in conditions in which it may become urgently necessary to break off the mercurial treatment. Care is also required not to at once suddenly introduce into the blood too large quantities of mercury where there are syphilitic changes in dangerous regions, such as the eye or the brain, because of the severe local reactions which may result. He does not find that Wassermann's reaction is an infallible guide in treatment. A positive reaction in a patient who has not been recently treated by mercury is an almost certain sign of syphilis, and indicates the necessity for treatment. On the other hand, the result may be negative where syphilis undoubtedly exists, as in the first stage of the disease; it may be positive at the end of an apparently successful mercurial treatment in some cases, possibly, only as a result of the slow elimination of the chemical substance upon which the reaction appears to depend; it may be negative even through a relapse. As a safe guide to treatment, Wassermann's reaction must often be considered in combination with the results of examinations as to the absorption and elimination of mercury in the particular case, examinations which are laborious to carry out. In carrying out the mercury treatment he gives a first course of from four to six weeks if salicylate of mercury has been the preparation administered, five to six weeks after percutaneous treatment, and about one to two weeks longer after ol. merculioli. The patients are kept, as a rule, under the strong action of mercury for the first two years, half of the third. The treatment lasts longer if general relapses have occurred. After two years free from symptoms the probability of a cure is very great. If, later suspicious symptoms should occur, a renewal of treatment would be justified, and should certainly be undertaken if Wassermann's reaction were positive. He recommends that the primary sclerosis should, where it is practicable to do so thoroughly, be cut out, not in the hope of preventing general symptoms, but in order to remove a syphilitic area, in which spores may possibly be present for a long period, and may later give rise to local symptoms, and in order to free the patient in a few days from the presence of a troublesome ulcer. The importance of local cleanliness and local mercurial treatment is emphasized. Salicylate of mercury, locally applied, is recommended for mucous papules. In tertiary symptoms treatment by iodine is to be actively carried on in combination with that by mercury for from two to three weeks, until a sufficient amount of mercury has been absorbed; the amount of iodine may then be diminished and discontinued after a week, while the mercurial treatment is persisted in. In congenital syphilis mercurial treatment of the mother during pregnancy may be successful prophylactic treatment. Excellent results are obtained, where it is practicable, by keeping the child for the first two years under mercurial treatment.

Poisoning Following Bismuth Injections.—Beck (Zentrab. f. Chirurg.) in a short article on this subject, admits that the injection of bismuth paste is not without danger, because slow, long-continued absorption of considerable quantities of the metal from large cavities can produce toxic symptoms. The first symptom, a slight livid discoloration of the skin, usually appears in the third week, but may show sooner. Later, small bluish ulcerations form on the gums. When the condition progresses, sickness, headache, and diarrhœa set in, the urine contains albumin and casts, the ulceration of the gums extends, the patient gradually gets weaker, and may eventually succumb.

Beck has treated several hundred cases with bismuth injections, and has never had a fatal case of poisoning. He advises that a sharp lookout be for the first signs of poisoning, and that when they appear the paste be removed by injecting warm olive oil, which is allowed to remain for twelve to twenty-four hours. The oil makes an emulsion with the bismuth paste, which is removed by aspiration. Removal of the paste with a sharp spoon is not advisable, for it opens up fresh raw surfaces for absorption. Beck advises that recent acute suppurative processes should not be treated with bismuth injections, and in cases where doubt exists as to whether the walls of a suppurating cavity are likely to absorb too readily, that a 10 per cent. paste should be used instead of the usual 30 per cent. paste. A light blue discoloration of the gums, without ulceration and unattended by symptoms, is, he says, not to be regarded as a sign of poisoning requiring treatment, for he has seen this in about 20 per cent. of all cases, and especially in cases which benefited markedly by the treatment.

Reich (Beitrage z. klin. Chirurg., Bd. lxv. Heft 1) records a fatal case of bismuth poisoning from Brun's clinique in which 25 c.cm. of a 30 per cent. bismuth paste were injected to promote healing of a pelvic abscess associated with appendicitis. The symptoms of poisoning came on acutely. The granulations became blackish in color. Rise of temperature, headache, giddiness and general weakness followed. The gums became discolored and ulcerated, and albu-

min and casts appeared in the urine. Delirium with hallucinations, tonic and clonic spasms followed, and the skin took on a dirty livid color. Death took place on the eleventh day. At the post-mortem examination the blood was found to be chocolate colored, the red cells being largely destroyed. Advanced degeneration was found in the parenchymatous organs, desquamation in the convoluted tubules of the kidneys, with hyaline and hæmoglobin casts and foci of hæmorrhage in the cortex. Capillary hæmorrhages were also found in the spleen. Reich refers to several other cases of fatal poisoning due to the use of bismuth injections.—Edinburgh Medical Journal.

Treatment of Chronic Prostatitis.

In an article published in the June issue of the Journal-Record of Medicine Dr. Alfred L. Fowler says that in the vast majority of the cases of chronic prostatitis the gonococcus is the offending organism, as is too well borne out by the astounding reports published during the last quarter century. The figures bespeak the frequency which the disease is regarded to occur as a complication of gonorrhœa. From 40 per cent. as reported by Montagnon to 94 per cent. recently reported by one observer, with the better evidence, to my thinking, in favor of the lower figures.

While it is proper to bear in mind the cause of its greatest frequency, nevertheless we should also remember that the disease is not always due to the gonococcus. I have observed it in men who knew not what venereal diseases were, who had been reared in the wilds of the mountains and arrested there by Government officers for illicit distilling and after conviction brought to the United States Penitentiary whence they came under my medical care at this hospital.

Because the disease occurs independently of gonorrhœa may partly explain the high percentage of cases reported by some observers since some of their cases must have had the disease before contracting gonorrhœa. But even so, my clinical experience tells me that these higher figures are incorrect.

Further Experiences with Vaccine in Tuberculosis.

Dr. E. C. Thrash, of Atlanta, Ga., makes the following remarks in regard to Vaccine in Tuberculosis, in an article recently published in the Journal-Record of Medicine:

It is superfluous to say that tuberculin is beneficial and curative in the treatment of tuberculosis. This has been and is the decision of practically everyone who has used it extensively, carefully, wisely, and prudently. The longer and the more one uses it, the more profoundly impressed he becomes with its potency for both good and evil, and the more he insists upon its careful administration. But because it must be used properly to get results, and will produce harm used improperly, would no more preclude its use than the same thing would preclude the administration of strychnine or digitalis. There is great need of a more accurate standardization of tuberculin. On account of difference in virulence of different strains of organisms it varies in antigen potency, in proportion as the different strains from which it is made vary. So a mg. of a tuberculin made from one strain of organisms would be practically sure to vary in antigen potency from a mg. of one from another strain. This difficulty with our present knowledge is impossible to overcome, but there is one in reference to a more uniform nomenclature which can be, and that is the variable strength of the solutions made by different manufacturers, and the references by one to the dilution, and to another to tubercular solids when speaking of doses. To be explicit, T. R. *solution* carries 10 mg. of solids to the c.c.; and B. E. put up by some manufacturers carries 5 mg. to the c.c., while others put one mg. of solids to the c.c. It makes quite a great difference as to whether one refers to solids or solutions in reference to doses. We should have a universal plan, in my opinion, of referring to solids when we name the dose, and in this way much confusion could be avoided. In the paper read before the association one year ago, I referred to solutions when doses were mentioned; I have begun since that time to estimate my doses exclusively in solids. This makes a difference of from 200 to 1,000 fold less, owing to the dilution, in each dose. That is, .001 of a mg. of the solution would be equal to .000001 mg. of solids, where the solution is 1 mg. per c.c., or .000005 when it is 5 mg. per c.c. This method applies only to B. E. and T. R., as the other forms of tuberculin are filtrates, and we can only estimate the dose in each respective solution according as it has been standardized by its originator.

The New Officers of the A. M. A.

Dr. J. B. Murphy, of Chicago, was elected President at St. Louis. The other officers are: Dr. E. E. Montgomery, Philadelphia, first vice-president; Dr. R. C. Caffey, Portland, Ore., second vice-president; Dr. W. D. Moore, St. Louis, third vice-president; Dr. L. E. Johnson, Washington, D. C., fourth vice-president; Dr. Frank Billings, of Chicago, re-elected treasurer, and Dr. George H. Simmons, of Chicago, secretary.

Los Angeles in 1911.

Murphy defeated the great Jacoby.—Texas Medical Journal.

At the recent National Confederation of State Examining and Licensing Boards, a high explosive was cast by Dr. Abraham Flexner and Dr. H. Pritchett of the Carnegie Foundation. Their report severely arraigned the condition of medical education throughout the country, and Missouri particularly fared rather badly, being accorded only three out of its many schools as at all near to standard. This report has been the subject of more discussion than all other topics put together; but, with the exception of very few, and those in every instance among the adherents of the schools disparaged, little adverse comment was to be heard; indeed, there seemed to be a general concordance with the views and conclusions of the report.

The Autoplastic Transplantation of the Extensor and Flexor Tendons of the Fingers.

Von Hacker (Zentralb. f. Chirurg.) has devised two operations for repair of deficient portions of the tendons of the fingers.

The first method was described in the Wien. med. Wochenschr., 1898, No. 2, and is intended for repair of the extensor tendons. It is suitable for the thumb, index, and little finger, all of which are provided with two extensor tendons. The tendons of the affected finger are exposed at the wrist, and the less important of the two is divided; the distal cut end is drawn downwards and stitched to the periosteum of the terminal phalanx. This procedure was successful in a case in which 5 c.m. of the dorsal extensor expansion over the first interphalangeal joint were destroyed with the overlying skin. The latter was replaced by a flap from the chest wall. For the middle and ring fingers, where there is only one tendon, the operation is modified by splitting the tendon and turning forwards one-half.

The second method described by von Hacker is suitable for both flexors and extensors. The parts of the special extensors of the index or little finger extending from the wrist to the metacarpo-phalangeal joint are used for transplantation. They can be adapted to any of the fingers. The operation is conducted in two stages. For deficiency of the flexor tendons of a finger the technique is as follows:—The tendon to be transplanted is exposed on the dorsum of the wrist and divided. The distal part is pulled out through an incision on the dorsal aspect of knuckle, and is carried subcutaneously to the flexor aspect of the affected finger. A tunnel is made for the tendon along the finger and the cut end is stitched subperiosteally to the terminal phalanx.

The second stage of the operation is performed fourteen days later after primary healing. The tendon is separated from its attachment on the dorsum and is sutured to the proximal end of the flexor tendon.

This method was successfully employed in the case of a girl, æt. 14, who had lost the flexor tendons two years previously from suppuration of the sheath.

Modifications can be made for different parts, and the following list shows the scope of the operation:—(1) the reformation of the flexor tendons in any of the fingers; (2) for deficiency of part of a flexor tendon in the palm; (3) for deficiency of the extensor tendons either on the dorsum of the hand or finger.

Destruction of a tendon renders the finger useless even although the joints are sound, and amputation is often required. The use of silk or catgut as substitutes for tendons has yielded poor results. Rehn has recommended the insertion of portions of separated tendons or strips of fascia, but the advantage of the two-stage method of von Hacker over other procedures is the retention of the nutrition of the tendon.—Edinburgh Medical Journal.

Practical Aids in Medical and Surgical Diagnosis.

In an article published recently in the Journal-Record of Medicine on the above sucject, the author, Dr. Lewis M. Grimes, of Atlanta, Ga., asks the following questions in reference to the examination of the blood, and gives answer to same:

(1) Just what is meant by a blood examination? (2) In what class of cases will a blood examination be of value? (3) How will a blood examination help me in treating these cases? (4) Will a blood examination help me in giving a prognosis?

This paper represents an endeavor to answer these questions. (1) What is meant by a blood examination? This term as ordinarily employed refers to the following proceedures:

Enumeration of the number of red corpuscles and of the leucocytes per cubic millimeter of blood, estimation of the percentage amount of hæmoglobin, an examination of the fresh unstained blood and of the stained smear for malarial parasites and for the presence of various abnormalities, and finally by enumeration, ascertaining the percentage number of the different kinds of leucocytes present.

This last preceedure is known as the differential count.

Frequently any one of the above mentioned proceedures is termed a blood examination, whereas all of them are embraced under the name of a *complete* examination.

Diagnosis and Treatment of Typhoid Fever.

Hiralal J. Lal, L. M. S., Medical Officer, Jasdan State. Typhoid fever is a disease which has such an insidious and cunning onset and which presents the prodromata so varied in nature that unless the medical man is an alert, the commencement of the disease is very apt to be misunderstood. Every case of remittent fever which has commenced in an incidious and cunning manner ought to be viewed with suspicion. A full knowledge of the classical signs and symptoms of the disease though essential for the diagnosis and treatment of the case gives but a very little scope of recognising the disease in its early stage. The exact history of the fever and the treatment adopted for it before the patient seeks our advice together with the knowledge of prevailing epidemic or the occurrence of sporadic cases or the history of patients' having been out to a place at least a week before the onset of fever are all important data to base a diagnosis and should never be lost sight of. I give brief notes of two cases of typhoid fever recently treated by me successfully.

Mr. H., age 32, came to me complaining of acute pain in the left side of the chest; remittant fever, severe cough and hæmoptysis. The duration of illness was three days. Physical examination revealed nothing beyond a few scattered rales over both the lungs. Hæmoptysis and high fever indicated a grave lesion, but the absence of physical signs of pneumonia and the fact of having witnessed many times difficulty of distinguishing between pneumonia and typhoid during their onset made me conservative in declaring a diagnosis. One point which I have many times noticed is the relation of pulse beats to temperature. In typhoid fever pulse is slower than it ought to be with a corresponding temperature range. Thus it is common to find a pulse beating only 100 times per minute, the temperature being 102° or 103°. I made daily examination of the chest but could detect no signs pointing to pneumonia. On the 8th day tympanitis, enlarged spleen and diarrhœa were noticed

2nd Week.—Diarrhœa continued, no rash; increasing weakness, dicrotic pulse; abdominal pain and tenderness, pea soup colored offensive stools; marked tympanitis; deafness, severe cough, furred tongue, intense thirst and delirium of the low muttering type.

3rd Week.—Weakness still increasing, torpor so marked that the patient scarcely opened the eyes, involuntary evacuation of fæces, occasional retention of urine, carphology, brown furred tongue, heart sounds very weak and nearly inaudible, and a remittent temperature.

4th Week.—Disappearance of all the nervous symptoms, persistence of cough and gradual disappearance of other signs and symptoms, temperature subnormal.

Convalescence protracted without any complications. Specific rose spots seen on chest and abdomen six in number.

5th Week.—Intermittent temperature, dicrotic pulse, motions one or two in 24 hours. No pain, tympanitis absent, intense weakness and emaciation. He is still under treatment and making a good recovery.

Chief points in making an early diagnosis are: 1. History of infection. 2. Insidious and cunning onset. 3. The ratio of pulse beats to temperature. 4. Knowledge of different ways in which the disease begins.

Treatment.—The antiseptic treatment of typhoid is undoubtedly the best, but every case has its own treatment. As far as drugs are concerned, I am in favor of carbolic acid and calomel. I have tried them with success in many cases along with hot wet packs, baths, milk diet; but I cannot positively state the amount of good done by the drugs independent of the other treatment. In the first week I prescribed rest in bed, wet packs, milk diet and the following drug treatment:

A weak diaphoretic mixture, small doses of calomel and—

℞ Acid Carbolic Liq. ..... ℥j
Acid Acetic..... ℥v.
Tinct. Card. Co. ..... ℥x.
Glycerine 3j
Mist Diaphoretica ad..... 3j
One dose every three hours.

3rd Week.—The same mixture repeated with tinct. digitalis, two hypodermic injections of digitalin in 1-100 gr. dose, and stupes continued.

4th Week.—During convalescence, quinine mixture and liq. arsenicalis, citrate of iron, quinine and strychnia.

The other case was the patient's father who suffered during the fourth week of his son's illness and was treated somewhat similarly and on the same line.—Practical Medicine, Delhi, India.

Treatment of Placenta Previa.—Duhrssen (Berl. klin. Woch.) says that the modern Cesarean section should not be regarded as the only method of treatment of placenta previa. The author regards the use of metreurysis with incisions as of great value in delivering a living mother of a living child. The disadvantages of forced labor are these: death as a result of the severe operative procedure; deep tearing even into the abdominal cavity; tearing into the vascular parts of the uterus; causing the placenta to be detached too soon; difficulty of making a correct suture; tearing into the parametrium; leading to endometritis and displacements of the uterus. He believes that the use of metreurysis can be so applied that it will cause no bad effects. In case of dead or nonviable children the proper treatment is combined version and extraction. There are in the first seven months of pregnancy cases in which the cervix is so rigid that mechanical methods of dilatation are impossible without tearing the cervix severely. In these cases vaginal Cesarean section has given the author the best results. Tamponade gives delay enough to permit of bringing the patient to a hospital. In these cases metreurysis is not applicable because the introduction of a balloon is not possible. Total placenta previa is not a contraindication for metreurysis. As soon as the fetus reaches the placental lip the latter is bored through and the balloon introduced. This method diminishes the maternal bleeding, and if the heart tones of the child are carefully noted there need be no danger to the child, since labor may be quickly concluded when necessary.

Peritonitis by Rupture of Pyosalpinx.—Lamouroux (Arch. gen. de Chir.) mentions the occurrence of peritonitis following the rupture of pyosalpinx. The pus generally collects slowly, the walls meanwhile becoming thickened and sclerotic. They may be stretched almost indefinitely; but if they are pulled upon, as happens after confinement, by the contraction and involution of the uterus, they are very frequently torn, the result being a sudden attack of generalized peritonitis which is rapidly fatal. Lawson Tait said that 50 per cent. of women who have salpingitis are menaced with sudden death from peritonitis on account of sexual excesses, fatigue, and sudden efforts. Out of eighty-seven observations collected by the author, forty-seven were operated on by laparotomy, of whom twenty-seven were cured. All the patients treated without operation died. The pulling down of the uterus during gynecological treatment or operation may cause rupture. After labor rupture occurs, but rarely during pregnancy or labor. The tubal rupture occurs on the peritoneal surface of the tube: sometimes it is a fissure, at others the perforation is very small; again it may be irregular as if a slough has formed. The perforation is generally single. The rupture is so small, the amount of pus so small, the location such that it is unlikely to be the result of bursting from pressure. The immediate cause is generally some slight exertion. The important consideration is the alteration in the wall of the tube; it may be ulcerated or a small abscess may form in the wall. A tube with chronic infection, which has been increasing slowly in size, may become suddenly acutely infected and rapidly become distended. Labor may reawaken a salpingitis that has been quiescent. Massage of the uterus or abdomen is dangerous in such cases. The symptoms are those of a sudden general peritonitis; pain, vomiting, profound intoxication, algidity, and early death if operation is not performed. To wait destroys all chance of life for the patient.

The Spirocheta Pallida of Schaudinn in the Livers of Embryos and Macerated Fetuses, and the New-born.—Girauld (L'Obstet.) says that clinical signs often are not sufficient to diagnosticate heredo-syphilis, and the gross and histological lesions of the placenta and viscera are not sufficient to distinguish them from various degenerative processes. The presence of spirocheta pallida is a positive criterion for diagnosis. Girauld collected all the suspected cases during five months at the Hospital Saint Louis and during the year and four months at the Maternite, and subjected the fetal organs to examination. Syphilis is the greatest cause of abortion and death in young infants. Two factors influence the effect of the syphilitic virus; they are the origin of the syphilis, and the length of time since its contraction. Paternal syphilis is admitted when an uninfected woman is delivered of an infected infant. The mother is then infected by the child, either during pregnancy, or lactation, the infection having remained latent during pregnancy. When a woman has had a syphilitic child by a first husband, she may bear other syphilitic children to an uninfected second husband. Early abortion in paternal syphilis is less frequent, since the virus acts from the beginning of conception. Syphilis of maternal origin is very rare when the father is not infected. Syphilis may produce placental hemorrhages, but more often death of the infected fetus results from septicemia due to spirochetes. Postconceptional syphilis of the mother, when the infection occurs toward the end of gestation, may spare the infant, but it may be later infected after birth by lactation. During

the first half of pregnancy the transmission of syphilis to the fetus is almost always fatal. In the sixth and seventh months occurs a period when it may not be infected. A period of fifty days is necessary for the infection to reach the fetus from the mother by way of the blood. At an epoch much nearer infection the virus may reach it by the placental route. The most frequent cases are ante-conceptional syphilis; from the placenta the maternal blood carries the infectious organism to the fetus; it is a blood infection. Here the appearance of the disease is later than in paternal syphilis. He has found the spirochetes in the fetus produced by a woman in the tenth year after her infection. In maternal ante-conceptional syphilis the death of the fetus is the rule. The influence of time on syphilis is to attenuate the virus; the effect is spent on the first generations. Mortality is greatest during the first three years after infection; it then sensibly decreases. The spirochetes may be found in the placenta, and in all the tissues of the fetus. The liver is the organ that ordinarily contains the largest number of parasites; the lesions in the liver are those of a general septicemia of hemorrhagic type; the spirochetes occupy the cellular interstices. Among two hundred autopsies only three cases have shown gummata in the liver. Of macerated syphilitic fetuses 64 per cent. show spirochetes in the liver. In living infants who are syphilitic the liver contains many more spirochetes than are found in macerated children, which would indicate that maceration does not especially favor multiplication of the parasites. Absence of spirochetes coincides generally with treatment received by the mother during pregnancy; hence every woman suspected of syphilis during pregnancy should undergo a course of treatment by mercury, even when the infection is old. Every woman who procreates with a syphilitic man should be treated in the same manner. There are cases in which the mother has been given treatment throughout pregnancy and yet spirochetes have been found in the liver of the fetus. Excessive weight of the placenta, of the liver or spleen is an indication of syphilis. Examination of the placenta is generally negative; had syphilis been a teratological factor monsters would be an indication of syphilis. In hepatic gummata spirochetes are generally abundant.

Studies of the Diarrhea of Infants.—Metchnikoff (Gaz. med. de Paris) says that bacteria are of great importance in the causation of diarrhea in infants. To prove this he has experimented on rabbits, causing diarrhea in them, and later in chimpanzees, by injecting them with the infectious material from a case of cholera infantum. These animals were fed on the same materials which they had eaten with impunity before the experiments, and we may conclude that the food had nothing to do with the diarrhea; hence the bacteria must have caused the disease. It is the Gram-negative organisms that are found in these stools The bacillus proteus is the most frequent. In rabbits and chimpanzees this bacillus was found in the stools and also in the blood. It is a truly pathogenic organism whose role in the diarrhea of infants cannot be doubted. We must now consider how it reaches the intestine of the child. It is rarely found in cow's milk, but is present in the feces of most animals, the upper layer of meats and cheese, and most vegetables, fruits, and salads. From these it reaches the intestines of adults and by contact with them is communicated to infants. Flies aid in this dissemination upon food. Proteus is well tolerated by adults, but causes diarrhea in infants. Preventive measures include not only pasteurization of milk, but sterilization of the hands of attendants, and careful washing of fruits and vegetables in boiling water which kills this bacillus. The cleansing of streets and destruction of flies are also important.

The Systematic Treatment of Infantile Bronchopneumonias by Inhalations of Oxygen.—Weill (Lyon med.) records the results of cases of bronchopneumonia in young children treated with large and almost continuous inhalations of pure oxygen; it is used not as a symptomatic treatment but as a remedy for the specific infection, as an antiseptic for the air passages. The technic is simple, without danger, and the therapeutic results are claimed to be remarkable. Bronchopneumonia is a descending infection of the air passages from infections of the nasopharynx, which are usually saprophytic. The lesion is treated locally by the oxygen and at the same time the system is protected against the effects of the infection. The author creates a veritable atmosphere of oxygen for the lungs, the inhalations being repeated every hour or half hour. It may also be used in bronchitis as a prophylactic against pneumonia, and in fully developed pneumonia it should be continued some time after resolution is going on. The course of the disease is shortened, and defervescence is rapid. Temperature is lowered, pulse slowed, dyspnea relieved, and sleep induced by the inhalations. They are given from rubber bags of oxygen with a mask that covers nose and mouth.

Double Infection with Measles and Scarlatina in Children.—Brudzinski (Arch. de med. des enf.) believes the consecutive occurrence of measles and scarlatina, more than three days apart, and generally during convalescence from one of the diseases, as simultaneous infections. The organism being weakened by the disease which has already occurred is in some instances more severely infected with the second disease, there being apparently no protection by one against the other. There is a great difference of opinion as to whether the second infection is always more severe, and as to whether there are more complications than usual in this case. He reports and analyzes the histories of cases seen at the Hospital in Lodz, where the simultaneous infection occurred. There were thirty-eight cases in all; six of them contracted the mixed infection in the hospital; four had never had measles. The two eruptions may occur at the same time, or either may precede the other. Of the cases in which the eruptions were present simultaneously there were three; one died. In six cases scarlatina appeared first, while in three measles preceded; all recovered. This small series of cases suggests that measles does not exercise a bad or fatal influence on the scarlatina which follows it. As to the complications which ensue, none were more frequent except otitis, which is a frequent complication of scarlatina when uncomplicated with measles. Bronchitis and bronchopneumonia are a little more frequent. The character of the eruptions differs according to the periods of appearance. The two eruptions may occupy different locations on the body; one may disappear before the other; the measles eruption may develop very slowly; scarlatinous desquamation when occurring does not influence the measles eruption. Desquamation in the mixed infection is more abundant than when the eruption is single. On the face will be seen measles desquamation; on the chest and trunk the two exist together; on the limbs, large squama of scarlatina are found. Koplik's sign is of great value in the diagnosis of measles in these mixed infections.

New Method of Administering Mercury.—Milian (Journal de Medecine et de Chirurgie) calls attention to the fact that mercury has been given by the mouth with the result of disturbing the digestion; by hypodermic injections, which at times are extremely painful; by inunctions which are incompatible with privacy and are, moreover, dirty; by suppositories which have not proven very efficacious; and by the nasal mucous membrane, calomel having been insufflated. The writer suggests as a new method the utilization of the preputial sac, stating that thus the drug can be introduced without ostentation and quantities sufficient to be efficacious. Indeed, the success has been so great with mercury that he proposes that this hitherto little used mucous membrane be employed for the introduction of many drugs which irritate the stomach. The author employs ung. hydrarg. 4 0 grms., mixed with sufficient caco butter to make a small pastile, or the mixture may be molded into elongated rolls. The foreskin is retracted, the pastile or roll is placed in the coronay sulcus, and the foreskin is brought forward again. The author states that in four hours the drug has completely disappeared, nor does any of it escape by melting, absorption being complete. The author has tried this method on 40 patients, nor has he ever seen the faintest irritation result; it is singularly efficacious for lesions of the penis. As for the inconveniences of the method, he states that there are none, except that, as he naively remarks, it is not applicable to either women or those who have no prepuces.

Digitalis and Camphor in Croupous Pneumonia.—Quisling, in The British Medical Journal, recommends the use of a combination of digitalis and camphor in the treatment of croupous pneumonia. It is noted that digitalis acts as an antiphlogistic in pneumonia, as by stimulation of the vagus the diastole is prolonged and the venous circulation through the lungs facilitated. By this depletion of the overfilled lungs the exudation in the alveoli is lessened. He also points out that, although the various active principles of digitalis cause contraction of the arterioles and hence and hence an increased peripheral arterial pressure, it has been proved by Mellin that this does not occur in the pulmonic system except by intravenous injection of digitalin. Therefore the action of digitalis becomes doubly useful in pneumonia; but to have this effect it must be given early and in large doses. To counteract the danger of large doses of this drug the author combines the digitalis with camphor, on account of the latter's known power to stimulate the nervous apparatus of the heart, as well as its stimulating action on the vasomotor and respiratory centres. He uses a one per cent. infusion of digitalis with an equal quantity of camphor emulsion in tablespoonful doses every hour during the first twelve hours, and afterward every other hour. Each tablespoon will therefore contain 0.15 gramme (2¼ grains) of digitalis and about 0.0375 gramme (one-half grain) of cam-

phor. He gives half this dose to children between ten and fifteen years of age, but has not used the drug for children under five years.

Atropine in the Treatment of Tetanus.

—Secoresto, in The London Medical Lancet, gives an account of two cases of tetanus in which atropine was employed in the treatment. In the first case one-eighth of a grain of morphine combined with 1-300 grain of atropine was given by the mouth every two hours for three days and then every four hours. From the first dose the spasms markedly decreased in frequency and severity, and the patient was able to obtain good rest at night. In about four weeks the patient was up and about the house. In addition, small doses of calomel and sodium sulphate were given to keep the bowels open, and the wound was dressed with hot turpentine. The second case was a colored boy, three years old, whom he saw by accident, when a well marked trismus was noticed, but no wound could be found. He had stiffness of the muscles of the body. He was treated similarly, but with smaller doses, and by the beginning of the fourth week all symptoms had disappeared. The writer has seen many cases of tetanus, and was surprised at the effect of the treatment. He mentions, as confirmatory of the use of atropine in tetanus, that the Government veterinary surgeon told him that he employed large doses of belladonna with small doses of morphine in treatment of tetanus in animals, and that a fatal result rarely occurred.

Pancreatic Cyst in an Infant.—Telling and Dobson (British Journal of Children's Diseases) say that the earliest period of life at which a pancreatic cyst has been recorded was six months. The position of the cyst in the mid-abdomen is the one which is recognized. In the author's case (child of nine months of age), the situation in which the cyst presented itself, its mobility, the fact that it could be traced directly to the pancreas, and that it was free from all other structures, made its origin quite certain. The absence of ferments in the fluid has been conclusively shown to be of not infredent occurrence in certain yancreatic cysts. The child was successfully operated upon.

Treatment of Extrauterine Pregnancy.

Essen-Moller believes in an immediate operation in every case of extrauterine pregnancy that is diagnosticated. The writer bases his opinion on forty-eight cases of extrauterine pregnancy operated on by him with but one death. Immediate operation will save most of these patients, while the expectant treatment will result in many deaths from uncontrollable hemorrhage. There is never a moment when the patient is not risking her life from hemorrhage. The expectant treatment necessitates a later operation for hematocele or other complications in many cases, and this is done at a time when success is less likely than in the beginning. A convalescence which is long, and during which the patient must remain in bed, is the result. The statistics which are given to demonstrate the advantages of the expectant treatment are misleading because they contain many cases of false diagnosis. Immediate operation has no more risks than the later one, and no more than any other abdominal operation.—L'Obstetrique.

Presence of Diphtheritic Toxins Circulating in the Blood.

Menabuoni has made careful investigations as to whether toxins of diphtheria can be found circulating in the blood of the patient after the throat infection has cleared up, and whether this is the cause of the late diphtheric paralysis. His experiments were made upon rabbits, injecting the toxins, and examining the resulting gelatinous edema. He concludes that after a certain interval the toxins are no longer found in the circulation. Toxins were found from three to four days after the membrane disappeared from the throat; its presence is subordinate to the presence of the bacilli in the infective focus, living and virulent. As long as there is exudate we may expect to find the toxins in the blood. The paralytic phenomena are probably not to be attributed to circulating toxins. The period of true activity of these germs is very short, and they are most active during the first few hours after the infection. The toxins fix themselves slowly on the cells, but quite stably. As a corollary we see the necessity of preventing this fixation very early in the disease by the use of antitoxin. The avidity of the toxins for the receptors of the antitoxin is greater than that for the receptors of the cells.—Rivista di Clinica Pediatrica.

Carcinoma of the Stomach with Metastases in the Bone Marrow.

Harrington and Teacher say that the occurrence of cancer metastases in the bone marrow is followed in most instances by the appearance of large numbers of erythroblasts and myelocytes in the blood, usually associated with a high color index and megalocytosis. Where there is reason to suspect the presence of cancer, the constant presence of large numbers of erythroblasts and myelocytes in the blood, with megalo-

cytosis and a high color index, should suggest bone metastases. The presence of bone pains favors the diagnosis, but the greatest importance is attached to the condition of the blood. The blood picture is due to the stimulation of the bone marrow by the metastatic tumors. The manner in which they act cannot at present be determined. Probably both defective hæmogenesis and increased hæmolysis take part in the production of the anæmia. The very widespread distribution of tumor through the skeleton, with its absence from the viscera, suggests a selective affinity on the part of the tumor for the bone marrow, and they believe the following to have been the sequence of events in their case. The tumor developing in the red marrow in its normal situations destroyed it, and a compensatory hypertrophy took place in the same situations in which this has been noticed in septic conditions and after severe hemorrhage, viz.: in the medullary cavities of the long bones. There the ordinary yellow marrow was to a very large extent replaced by red marrow rather of the erythroblastic type; and in this new marrow the secondary tumors had developed to a greater or less extent. While the bone marrow and the blood present evidence of disordered (megaloblastic) red corpuscle formation, the marrow is particularly free from degenerative changes, and is not the bone marrow of a pernicious anæmia.—Glasgow Medical Journal.

An Interesting Case.

The Australian Medical Gazette publishes a letter, signed "Agricolæ Gasa," in which the writer relates the following amusing incident in antipodean practice, which brings to mind recollections of thirty years since, and confirms what we were told at school —that "history repeats itself." We have known many similar cases in dear old England. He writes:

Whilst the recent beneficent rains which have been falling all over the State were gladdening the farmers' hearts, I had just returned from a 40-mile dark and wet motor dark and wet motor trip to find another message waiting from a "squatter" some mile or more from the township. Being possessed by a cat, and having nothing with legs but a Persian cat, I set out on foot. The residence I was seeking was a tent up a gully, across several swollen creeks, and occupied by a sleeper-getter. It was raining about an inch to the hour, but I reached the sufferer after about two hours' struggling, with sodden boots, well soaked trousers, ruined matches, and "dowted" lamp.

The case was one of furunculus communis, or "bile on the back of me neck," in the patient's expressive Saxon. The specimen was in full blast (the patient made use of a similar term), and seemed likely to continue operations for a day or two longer. I made a small conical incision, applied a hot foment, promised to send a pot of something—fuge and a m ixture con cerning the prevention of skin infection by the pus, gave a mild calomel aperient, delivered a short lecture upon the work of opsonins, ending by a resume of recent work by Wright and Douglas, showing how the passive congestion method of treatment of Bier tends to the same end, and offering to return later in the evening—it was now 1 a. m.—to prepare culture for the manufacture of a vaccine. I left, thinking I had done my duty. But it was not so.

I did not have the opportunity of reexamining this interesting case till more than a fortnight afterwards, when the patient walked into my consulting room—without knocking—to find me listening to a lady's chest. He was wearing his "nearsighted" spectacles and had others for distance in his pocket, and a pair of blue goggles for the glare.

I noticed that the original suppurating focus had healed, but that a new and fine crop was appearing along a line adjoining the occipital protuberance with the spine of the scapula. He was wearing a new silk scarf, and wanted "to be sounded for to jine the lodge."

"Jubes renovare dolorem," and he was nothing loth to recount his recent history—"tell me the blooming yarn," as he put it. Being a single man, a sleeper-getter, with a cheque to burn, the pain insistant and the boil ebulient, he went to Sydney to see "the specialists."

First he sought Dr. ——, the eminent surgeon, who, ringing up a private hospital, arranged for his admission forthwith and saw him again that day. Dr. ——, after making remarks about the negligent treatment of country doctors, arranged for an operation, Dr. —— being the anæsthetist, the object being to "get the matter out of the system," the matter being urgent—in fact, "only just in time." (The matter was yellow and metallic, I understand). The operation proving successful, Dr. —— was introduced, who, having prepared a vaccine from the operation pus, proceeded to vaccinate daily. "Every day he stuck a needle in my 'earole and sucked something up a—tube."

During this period the patient, having no doubt developed an external strabismus from seeking to inspect the site of so much surgical concern, was introduced to Dr. —, the eminent oculist, who prescribed three

pairs of spectacles, and drew three visiting fees.

Palpitation and vasomotor disturbances of the face having developed—the patient in his simple way explained it, "the nerse was such a bonser, and I fair hated for her to see me in bed"—Dr. ——, the eminent cardiologist, was consulted, who prescribed —I saw his prescription—pot. brom. gr. x. t.i.d.—drew his fee, and, like a gentleman, withdrew.

The original trouble was healing by this time, but a crop of acne having made its appearance about the scapular regions.—"They ain't there when I get a swim and a rub down reglar," my intelligent informant explained—Dr. ——, the famous dermatologist, was sent for and advised further cultures, vaccines, et seq.; but about this time the cheque was drawing to a close, and my bucolic friend was rather suddenly, as he thought, "discharged cured."

He disingenuously explained that he could not pay my modest 10s. 6d. for coming to see him, because, as he vulgarly put it—or may I again invoke the classic muse—

"Lupus insidias pecori—retia cervis
Ulla dolum meditantur,"

As my interesting lodge patient said: "These blokes know when a cove comes from the bush."

Truly, as the ancient Virgil sweetly sings—

"Urbene, quam dicunt Roman, Meliboee, putavi
Stultus ego huic nostræ similem, quo saepe solemus
Pastores ovium teneros depellere fetus."

So I sounded him and put him "on the lodge."

Miscellaneous.

"Salicylic Acid is a drug of considerable value, but it is somewhat trying to the stomach. for which reason the sodium salt, which is not so objectionable, is generally used.

The salicylates prepared from the natural oil are far less irritating than the synthetic products, and are superior to them in every way.

In addition to their virtues as intestinal antiseptics, the salicylates possess pronounced anti-rheumatic and antipyretic properties, and are said to increase the fluidity of the bile; as it is certain that they exert a very favorable influences in cases presenting symptons of undue viscosity of this fluid."

All the salicylic acid in Tongaline is made from the natural oil and its action is intensified by the other ingredients in the preparation, making Tongaline the ideal vehicle for the administration of the salicylates.

The periodical nervous headache

Among the most common ailments, especially among the young, are the periodical nervous headaches, and three or four time as many females as males are afflicted with them. Dr. A. F. Schellschmidt of Louisville, Ky., states that "they generally manifest themselves about the time of puberty and are very severe for a few years, but with increasing age the attacks become less frequent, until at the age of forty they seem to almost diseappear and are seldom or never seen after fifty. They are associated with vertigo, nausea and vomiting. The pain is in and around the eyes and while the attack lasts there frequently is partial or total blindness. Those who complain of this trouble suffer from prodromal symptoms for several days before the attack shows itself in an active form, which symptons differ in different patients.

When treatment is demanded it is more for the pain than anything else. Opium will relieve but does more harm than good as it leaves the system in a worse condition to resist a subsequent attack. Antikamnia tablets give grest relief and act quickly. An emetic will sometimes abort an attack. The bowels should be kept open and those dieuretics which hasten the elimination of the urea should be administered. If the attacks are due to a reflex nervous condition the cause must be sought and treated. The adult dose of antikamnia tablets best suited for the relief of these headaches, is two every three or four hours,"

Diseases of Woman and the General Practitioner.

The general practitioner or family physician is the one usually first consulted in reference to menstrual irregularities and diseases of women. The tendeney to refer these cases to specialists takes from the general practitioner much practice which he could successfully handle if consideation was only given to their treatment.

For over 25 years Hayden's Viburnum Compound has proven its efficacy in dysmenorrhea, amenorrhea, menorrhagia, metrorrhagia and irregularities incident to the menopause.

This standard remedy has grown in popularity with the profession simply through its merits of accomplishing that which was expected of it. It is not a narcotic or secret remedy. Its formula is a matter of

common knowledge and it products positive results where the many substitutef and imitatons fosted upon the medical profession and trading upon the well-known reputation of H. V. C. are disappointing, sometimes dangerous.

Imitation might be considered a flattery, but when treating diseases of women and expecting results from a remedy prescribed, it is always safest to use the original and not a substitute.

Argument: The therapeutic value of Hayden's Viburnum Compound has built up an enviable repuation for its efficiency, hence its many substitutes. Why let a druggist put up something inferior upon your prescription for the original H. V. C.?

Bromides and Other Drugs in Epilepsy—

Turner; in the British Med. journ. goes very fully into the treatment of epilepsy. Speaking of drugs, he emphasises the importance of separately considering the treatment of recent epilepsy from that of the confirmed disease, and states that while there is no single specific remedy, the alkaline salts of bromine come nearest to this definition. The influence of the bromides upon epileptic convulsions is variable and uncertain; a large percentage of epileptics derive no benefit from their administration' Other cases may be temporarily "cured'. or materially improved. Still, he advises that all cases, especially of recent onset, should be given the benefit of the drug for a time. Any harm that may result is due to improper administration, and not to the salts themselves. Bromide treatment should be commenced early, and should be continured for at least two years, the actual duration of treatment being determined by the study of the individual case. The daily dose should not exceed 45 to 90 grains if this fails to give benefit some other remedy should be restored to. Large doses induce bromism, and it should be remembered that the bromides have an accumulative action. The adoption of a purine-free and salt-free diet allows of relatively small doses being prescribed. Of the vorious bromides, the sodium salt is most efficacious. Combinations with other remedies are useful, and the author speaks highly of Gelineau's formula containing potassium bromide, picrotoxin, and antimony arseniate. Referring to other drugs, mentions sodium biborate being in much favour, though he himself has found it of little use except in combination with a salt of bromine. He has seen no particular advantage obtained by the use of organic compounds of bromine. Calcium salts are worthy of further study in the treatment of epilepsy, but the type of disease most su'table for treatment by them has probably yet to be defined. Organotherapy has proved to be disappointing, and the practical utility of serum therapy has not proved sufficiently satisfactory to render its application general,

Polyneuritis.

Poriilla defines the disease as the simultaneous alteration of many nerves owing to an infectious, toxic, or diathetic origin. He differentiates it from tabes and from anterior poliomyelitis, and describes the course of the disease which is favorable in peripheral cases. Prognosis is unfavorable if there are contractures and in alcoholic cases; reincidence is common.—Cronica Medico-Quirurgica de la Habana.

Extracting the Principles of Cod Liver Oil.

In Hagee's Cordial of the Extract of Cod Liver Oil Compound, the active principles of cod liver oil are extracted from the whole product, thus saving the stomach the task of digesting the oil for the sake of the medicinal properties it contains. When it is remembered that the whole oil will frequently upset a normal stomach, this feature of Hagee's Cordial of the Extract of Cod Liver Oil Compound, at once stamps it as the most reliable and palatable cod liver oil preparation to prescribe.

In extracting the active principles of the oil, no change whatever is made in their therapeutic integrity. Even the complex specific lecithine of cod liver oil is transferred in an unchanged and stadle state to the Cordial.

A Conservative House.

Some of the members of the medical profession would open their eyes could they look over the files of the Denver Chemical Mfg. Co., manufacturers of Antiphlogistine, and see the many, many requests for window hangers, store advertising, etc., which they are constantly refusing. This company could get an almost unlimited amount of advertising, good advertising too, at no expense, except for the printing of the cards or booklets, if they did not have too great a pride in the honorable position which they occupy as purveyors to the medical profession. Perhaps they feel the ethical requirements of their position more keenly on account of the personnel of the company. Half the members of the board of directors are physicians who have spent each of them many years in active practice, the president of the company being an ex-president of his State Society, and the head of the advertising department is himself a physician,

and was for many years the secretary of his County Society.

With such a personnel, it is not surprising that the advertising is not only strictly ethical, but even ultra-conservative in spirit.

Electric Test for Traumatic Neuroses.

Dr. Larat gives the tracings in seven cases of traumatic neuroses, to show the peculiar electromuscular contractions which seem to be specific for traumatic nervous diseases and are not observed in any others. The response to galvanism is increased, the anodic closure contraction equalling or surpassing the cathodic closure contraction. In health, the latter surpasses the former by two-thirds. The peaks in the tracings are not rounded as in the reaction of degeneration, but are sharp and angular as with normal contractions. The increased excitability is observed both in the affected and the sound side. These findings confirm the assumption that a traumatic neuroses is a general neuropathic disturbance of the nerve centers, not a local affection. —Presse Medicale, Paris.

Cocaine Kelene Two Per Cent. (Fries Bros.).

The ideal local anesthetic. A combination of cocaine with Kelene (pure Chloride of Ethyl). Preserving all the advantages of cocaine, but obviating the use of hypodermic injection. It is non-toxic and cannot deteriorate. Producing a profound and lasting anesthesia. Applicable on mucous or cutaneous surface. Can also be used with the thermalcautery. The Kelene is not used for refrigerating purposes, but simply as the vehicle of the cocaine, removing the fats from the skin, penetrating the superficial cellular layers thereof and depositing the cocaine in their interstices. Although only two per cent., cocaine is used, the Kelene enhances its anesthetizing power, so that it is equivalent to a six per cent. pure cocaine solution absolutely free from all dangerous possibilities and capable of being applied instantly and without preparation—at once makes Cocaine Kelene the peer of all local anesthetics, Put up only in 10 gram tubes, 50 cents each. Sample tube mailed upon receipt of price.

FRIES BROS.

92 Reade St., New York.

The Hay-Fever Problem.

Again the physician is called upon to grapple with hay-fever, and a veritable army of sneezing, watery-eyed "miserables" come to him for relief. For a long time the idea was prevalent that little or nothing could be done for these people. The patient dreaded the coming of the disease, and the physician dreaded the coming of the patient. The situation was one of ample misgivings and scanty faith. Now it is pretty well recognized that medication, while still empiric to a certain extent, is nevertheless effective. The symptoms can be controlled or greatly minimized, and the patient may have the relief he seeks. And for this much he will be truly thankful, and the physician, in turn, duly thanked.

Adrenalin is perhaps the most effective agent. It antagonizes the symptoms and secures to the patient a marked degree of comfort. It allays the congestion of the mucous membrane, reduces the swelling of the turbinal tissues, controls the nasal discharge, cuts short the violent paroxysms of sneezing and the abundant lacrimation, and prevents depression by stimulating the heart.

The practitioner who desires to employ Adrenalin in the treatment of hay-fever has recourse to the product in a number of forms. Adrenalin Chloride Solution (1:1000) is doubtless the most widely used. It is first diluted with four to five times its volume of physiological salt solution, then sprayed into the nares and pharynx. Adrenalin Inhalent has many adherents. This is an oil solution, and is administered by spray. It may be diluted with olive oil—the inhalant one part, olive oil three to four parts. A third preparation is Adrenalin Ointment (1:1000), which is effective either alone or in supplementing Solution Adrenalin Chloride. Another is Adrenalin and Chloretone Ointment—at once an astringent, antiseptic and mild anesthetic. The latest is Anesthone Cream (Adrenalin Chloride 1:20,000, para-amido-ethyl-benzoate 10%, in a bland oil base), an astringent, anesthetic ointment. The ointments and cream are supplied in collapsible tubes with elongated nozzle, which facilitates their application to the nasal mucosa.

Literature on any or all of the products above mentioned may be had upon application to the manufacturers, Messrs. Parke, Davis & Co., at their general offices in Detroit or any of their numerous branch houses. The company, by the way, issues an attractive brochure on the subject of hay-fever.

Pepsin is undoubtedly one of the most valuable digestive agents of our Meteria Medica, PROVIDED A GOOD ARTICLE IS USED. ROBINSON'S LIME JUICE and PEPSIN, (see page —— this number) we can recommend as possessing merit of high order.

The fact that the manufacturers of these palatable preparations use the purest and best Pepsin, and that every lot made by them is carefully TESTED, before offering for sale, is a guarantee to the Physician that he will certainly obtain the good results he expects from Pepsin.

Respirazone, (Tilden's). A most satisfactory prescription for immediate relief in respiratory diseases, Asthma, Bronchitis, Hay Fever, Croup, Whooping Cough, etc. Its action is to cause prompt and efficient relaxation of nerve and muscle tension; it also contains alteratives which promote the absorption of exudates.

Respirazone, (Tilden's) contains no narcotics or other toxic elements, so that the physician is not deterred from pushing the remedy to effect in cases where expedite relief must be obtained.

"Castor Oil as Sweet as Honey".

University of California, Dept. of Pharmacy, San Francisco, California.—Have used Laxol, and am much pleased with same. I had the curiosity to make a chemical examination of your product and find it to be a pure castor oil as sweet as honey. On the whole, I believe you deserve congratulations on the beauty and palatability of your product.

EDWARD H. SAMUELS, M. D.,
Late Assist. Police Surgeon, San Francisco, and Instructor in Chemistry, University of California, Dept. of Pharmacy.

$100,000 Libel Against the Carnegie Foundation.

The St. Louis College of Physicians and Surgeons has filed suit for $100,000 against Mr. Abraham Flexner, Dr. Henry S. Pritchett, and Dr. George H. Simmons, alleging that the institution was damaged by a report on medical colleges read before the American Association, at the recent meeting held in St. Louis. The three defendants made up the committee which investigated the educational standing of the medical colleges of the United States in behalf of the Carnegie Foundation for the advancement of Teaching. The St. Louis College of Physicians and Surgeons was included in the list of those that were not considered efficient.

To Support the Heart.

"Cactina Pillets will strengthen the heart's action; it does support the heart; and its prolonged use will unquestionably encourage the physiological action of the human pump. And this assistance to the heart and circulation is absolutely without danger or annoyance to the patient. One can not find a more helpful and kindly drug, and he who prejudges it, or from bias denies it, without due examination, deprives himself of a valuable aid."

Evacuant or Deobstruant Treatment.

"The frequency with which cathartics or laxatives are required, shows that there is indeed a broad field for the use of Prunoids. Wherever evacuant or deobstruent treatment, or even the more far-reaching effects of thorough elimination are indicated, this eligible pharmaceutical product will give uniform satisfaction to both patient and practitioner."

A Blow to the Dental Profession.

The Supreme Court of Germany, according to our exchanges, has decided in effect that dentistry, when practiced by the American is a trade, to be distinguished from the profession followed by the German dentists, who are all "approved." The latter is placed in the category of doctors, who are not to be regarded as traders. American dentists, whether doctors or not are, in the court's view, not in the same class; they are not organized by the State and are not subject, like the German doctors, to a special court of honor. They are consequently thrown into the category of "traders in healing" and can compete like other traders in the ways laid down by the civil law, by advertising, for example. As a matter of fact, the American dentist in Germany does exceedingly well; and certainly does not, any more frequently than German "approved" dentists, fall short of the high standard of ethics and conduct that marks the healing professions in all civilized countries.—[American dentists and American shoes are all over the world considered the best.—Editor].

The Anemia of the Nephritic Patient,

like that of any organic disease or constitutional infection, is secondary in nature and is caused by, or is dependent upon, the original lesion or infection. There is, however, another element to be considered in this connection, i.e., the influence of an iron-poor milk diet in increasing the degree of Anemia from which the patient suffers. It is pretty generally conceded by authorities and clinicians of experience that a bland milk diet is best suited to the needs of the nephritic invalid, as the damaged kidneys are thus spared the irritation which results from the excretion of the products of the metabolic changes of the meat pro-

teids, etc. It is well known, however, that milk contains but an infinitesimal proportion of iron and the patient who subsists entirely upon this fluid for any length of time, is deprived of the food iron that is normally supplied to the blood to maintain its hematin and hemoglobin. This deficiency can be readily made good by administering Pepto-Mangan (Gude) both during and after the milk diet period. This palatable, organic, ferruginous compound is entirely free from irritant action upon the kidney and it does not disturb the digestion or cause constipation. The essential iron is supplied in tolerable and promptly assimilable form and the use of the remedy does not, in any way, interfere with such other treatment as the physician may see fit to adopt.

A New Stain for Tubercle Bacilli.

Vogt has used the new stain of Gasis for demonstrating tubercle bacilli and considers it superior to the older methods, as smegma bacilli will not take the dye. After the slide is fixed with heat it is flooded with a solution of eosin bichloride of mercury in water, and warmed for about one minute. An alkaline solution is then used for decolorization; the slide is then washed in 90-per-cent alcohol and water and counterstained with methylene blue. The tubercle bacilli will be bright red, the other structures blue. The solution should be prepared fresh every six to eight weeks. Numerous control experiments with smegma bacilli always gave negative results.—Muench. med. Woch.

Potassium Bichromate as a Cancer Cure.

In the British Medical Journal Fenwick describes twenty-two cases in which various forms of cancer were successfully treated by the use of potassium bichromate. The dose was seven to fifteen minims of a saturated solution, which was injected into the growth. In cases of rodent ulcer the solution was applied to the surface with excellent results. In some cases a 10 per cent solution was employed. The injections were attended with considerable pain, which was, however, successfully anticipated by the previous administration of an analgesant. The injections were given about once a week, although the author does not speak definitely on this point.

Daltonism.

Neuschuler defines Daltonism as as diminution in the chromatic sense, a dyscromatopsia, or partial or total achromatopsia. It is a diminution or loss of the chromatic sense. While absolute color-blindness for all colors is rare, a partial absence is not uncommon. It is more frequent in men than in women, on account of their more thorough education in colors. The total forms are generally bilateral, and associated with nyssagmus and amblyopia. The most frrquent forms of color-blindness are for red, for green, and for both of these colors. This condition may be congenital or acquired. In the congenital form the prognosis is absolutely bad. The secondary or acquired condition is dependent on general disturbances and symptomatic. There are various theories as to the causation of the congenital form, which the author recites. The symptomatology consists in alterations of perception for red and green, while the perception of blue and yellow is retained. In acquired Daltonism there may be atrophy of the optic nerve, or poisoning, as in alcoholic blindness. The use of santonin causes transitory disturbances of the color sense. The prognosis of this form is good.—Il Policlinico.

National Campaign Against the Housefly

We wonder why the natives of India, losing thousands of lives annually by snake bite, do not banish the snake; yet the serpents of India commit insignificant depredations, and cause few deaths, as compared with the house-fly. I know you do not believe that this little creature, which has no sting, and which buzzes around so lovingly during the summer-time, can be very harmful. With complacency we tolerate the fly, though we might get rid of him with far less difficulty than would be involved in the destruction of the snakes of the Indian jungles.

The fly has no sting, he merely causes us a little annoyance, and we become used to that. He has a more persuasive way of working, and we have become so accustomed to his presence that, with some of us at least, home would not seem home without his presence.

But those who have studied the habits of the fly have come to recognize him as one of man's most dangerous enemies. For some time the Merchant's Association of New York has been conducting an educational campaign which is already producing definite results; as intelligent people are learning of the danger of the fly, its filthy habits, its method of propagation, they are learning to limit its reproduction. They are learning that its proper appellation is not "house-fly," but "typhoid fly." The name sounds ominous, but it is no more ominous than the little insect we have been accustomed to harbor in our houses.

The American Civic Association, recently

Therapeutic Dependability—

the unfailing accomplishment of definite physiologic results—has won for

Gray's Glycerine Tonic Comp.

its recognized place in the treatment of all forms of functional debility. ¶ When other tonics fail or are contra-indicated for one reason or another, GRAY'S GLYCERINE TONIC COMP. may be freely used with the constant assurance that its effects will ever be restorative and reconstructive—never harmful or injurious.

Samples and literature on request.

THE PURDUE FREDERICK CO.
208 Broadway, New York.

LISTERINE

is a powerful, non-toxic antiseptic. It is a saturated solution of boric acid, reinforced by the antiseptic properties of ozoniferous oils. It is unirritating, even when applied to the most delicate tissue. It does not coagulate serous albumen. It is particularly useful in the treatment of abnormal conditions of the mucosa, and admirably suited for a wash, gargle or douche in catarrhal conditions of the nose and throat.

There is no possibility of poisonous effect through the absorption of Listerine.

Listerine Dermatic Soap is a bland, unirritating and remarkably efficient soap. The important function which the skin performs in the maintenance of the personal health may easily be impaired by the use of an impure soap, or by one containing insoluble matter which tends to close the pores of the skin, and thus defeats the object of the emunctories; indeed, skin diseases may be induced, and existing disease greatly aggravated by the use of an impure or irritating soap. When it is to be used in cleansing a cutaneous surface affected by disease, it is doubly important that a pure soap be selected, hence Listerine Dermatic Soap will prove an effective adjuvant in the general treatment prescribed for the relief of various cutaneous diseases.

"The Inhibitory Action of Listerine," a 128-page pamphlet descriptive of the antiseptic, and indicating its utility in medical, surgical and dental practice, may be had upon application to the manufacturers, Lambert Pharmacal Co., Saint Louis, Missouri, but the best advertisement of Listerine is . . . . . .

LISTERINE

located in the national capital, is an organization which aims to make country life beautiful. It accepts, as part of its work, the elimination of the house-fly, for the reason that this insect destroys happiness by spreading disease and death.

The association recently received from London a moving-picture outfit showing the fly in all stages of growth,—the egg, the maggot, the mature fly at work on offensive material, such as the top of a spittoon, then on a baby's nipple. Next the baby is seen with the nipple in his mouth. No lecturer is needed to explain the nastiness of the life history of the little creature, which is pictured in so graphic a manner. It is the intention of this association to have films duplicated for use in moving-picture establishments all over the country, so that the educational campaign can be carried direct to the youth of the nation.

It is not probable that any one who has seen the series of pictures in all their disgusting reality will soon forget the lesson; and more than any lecture or description, are these pictures destined to arouse the young to a sense of the nastiness and the danger of the fly, and to the importance of thorough cleanliness in the matter of garbage, stable filth and the like, upon which flies develop.—Life and Health.

Weak Foot.

Steinhart defines weak foot as a state of weakness or partial or complete lengthening of the ligaments and the muscles that effect the union and support of the tarsal bones. The etiology is extensive; excessive use of the feet and badly shaped shoes are the principal factors. He makes the following classification: the simple weak foot, weak foot with eversion and rigidity, deformed weak foot, flat foot with eversion and rigidity, traumatic flat foot, and paralytic flat foot. Complications are varicose veins and exostoses or chronic inflammation of the inferior epiphysis of tibia. He divides the symptoms into subjective and objective. Prognosis is always good if properly treated. The chief prophylactic measure is the manufacturing of proper shoes. The treatment should be directed to the restoration of the arch of the foot.—Cronica Medico-Quirurgica de la Habana.

Hypothyroidism and Disthyroidism in Children.

Concetti mentions a new form of hypothyroidism and disthyroidism, occurring in infants who are born or nursed by mothers nurses who have changes in the thyroid glands. The mothers show signs of hypothyroidism such as obesity, transitory edemas, disturbances in the heat sense and circulation, easy chilling, thinness of hair, vasometer disturbances, instability of nervous system, vomiting, and slight resistance of toxemias. In the children we occasionally find the marked form of myxedema, but in general see slight and abortive forms. These children are retarded in growth, suffer from attacks of asthma, headache, eczema, general atrophy, or asthenia When treated with thyroid therapy we find the conditions relieved, showing that the absence of thyroid secretion was in direct relation with the conditions found.—Rivista di Clinica Pediatrica.

Danger Due to Substitution.

Hardly another of all the preparations in existence offers a wider scope to imposition under the pea of "just as good" than the scientifically standardized Eucalyptol.

The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proved injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated and finally the medical reports commending on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit.

This fraud, which was exposed at an action tried before the Supreme Court of Victoria at elbourne, and others reported before in the medical literature show that every physician should see that his patient gets exactly what he prescribed. No "just as good" allowed.

The Meninges in Scarlet Fever.—Benard (Klin. Woch.) says that many of the cases of meningitis complicating scarlet fever which have been reported in the past are without foundation. The introduction of the lumbar puncture in 1900 has made diagnosis possible during life. Benard shows its rarity by finding only nine cases in 13,550 cases of scarlet fever in hospitals from all parts of the world. He has concluded from his 28 authentic cases, proved either by lumbar puncture or autopsy or both, that it is very rare, is found practically only in infants, secondary as a rule, and most often resulting from an otitis media, due to the patency of the Petrosquamosal suture. The most common organism is, as would be expected, the streptococcus. He makes the following divisions of its pathologic anatomy: Infection meningitis, bacteria being present without cellular reaction; secondly, reaction meningitis, manifested by simple cerebrospinal hypertension, lymphocytic spinal meningitis and meningeal congestion; and lastly,

ASEPTINOL

UNGT. ASEPTINOL COMP.

Indicated in acute and chronic cutaneous diseases, as Eczema, Erythema, Herpe Acne, Burns, Scalds, Pruritus Vulvæ, Pruritus Ani, Itching and Bleeding Hemorrhorids, Erysipelas, Varicose Ulcers, Infantile Scalp Diseases, etc.

Put up in 50c and $1.00 Jars

PHYSICIANS ARE REQUESTED TO WRITE FOR SAMPLES WHICH WILL BE SENT PREPAID

PULV. ASEPTINOL COMP.

Antiseptic, Deodorant, Astringent, Soothing, Healing. Efficacious in Leucorrhea, Pruritus Vulvæ, Vaginal Catarrh, Ulcerations of the Mucous Membrane, and in Abnormal Discharges. Valuable as a gargle in Tonsillitis and other Throat affections.

Put up in Quarter-Pound Boxes Price, 50c.

For the SKIN and MUCOUS MEMBRANES

ASEPTINOL MANUFACTURING COMPANY, BALTIMORE, MD.

LAXOL

When the Pyramids were built, Castor Oil

was an old and well-known Laxative. Its *value* has never been disputed. Its repulsive *taste* is the terror of every child. We have robbed it of its *one* objection.

LAXOL is positively palate-appealing.

Samples upon Request.

LAXOL, 168 DUANE STREET NEW YORK, N. Y.

Pine Ridge Sanitorium.

A Modern and Most Thoroughly Equipped Sanitarium for the Treatment of Laryngeal and Pulmonary Tuberculosis.

Dear Doctor: If you are going to send your Tubercular Patients to the best climate in the world, "The Sunny South," we offer you advantages you cannot afford to overlook. Proper altitude, no malaria, luxuries of a city with advantages of country air. Tuberculine and Vaccine treatment when necessary. Genic cooking. Rates reasonable. Address DR. GEORGE BROWN, Pres.; DR. LOUIS ROUGLIN, Sec'y, Atlanta, Ga.

GASTROGEN TABLETS

A Neutralizing Digestive

Sample and formula mailed to physicians upon request.

BRISTOL-MYERS CO.

277-281 Greene Ave.

Brooklyn-New York, U. S. A.

true meningitis, which may be merely histologic, seropurulent or purulent. The symptoms are typical of meningeal irritation or meningitis, according to the severity of the invasion. The same may be said of the progress and the prognosis. Some of the cases of reaction meningitis recover, according to the virulence of the organism. But on the whole the outlook is very grave. Hence the treatment is of little use. Repeated tapping may give relief, especially in cases of hypertension. But, as a rule, the progress is sure and rapid to a fatal termination.

Treatment of Uterine Fibromata During Pregnancy.—Kufferath (Jour. Med. de Brux.) mentions his views as follows: Uterine fibrom ta should only be treated if they exercise a deleterious influence upon pregnancy. Their tendency during this period is to enlarge, become softer and somewhat edematous, but rarely to break down. The size and position of the fibroid is especially to be considered, the most dangerous being those which are submucous. The growth may result in interruption of the pregnancy and dangerous hemorrhage, or in hemorrhage without abortion, which is quite rare, in retroflexion or retroversion, violent pain, localized peritonitis, symptoms of compression, abnormal positions of the fetus, rapid emaciation and cachexia. The treatment, if required, varies greatly. Artificial termination of the pregnancy is often very difficult and sometimes necessitates total removal of the uterus. Early delivery should be resorted to only in the presence of severe dyspnea. In general, any active treatment should be refrained from during the pregnancy if its course is normal. Operation upon fibromata is to be avoided at this time. On the other hand, intervention is necessary if complications exist. Fibroids of the cervix should be removed if they give rise to suppuration or hemorrhages. Large growths should be extirpated if they greatly increase the dangers of delivery. An attempt should always be made at first, however, to so displace the mass that the symptoms of compression are more easily borne. If this is impossible, however, laparotomy must be resorted to, proceeding as conservatively as possible. Total extirpation of the tumor is preferable to the Cæsarean operation, because the presence of the growth prevents the drainage of secretion. If the fibroid, however, is inoperable, recourse may have to be had to Cæsarean section, removing at the same time the ovaries, so as to prevent subsequent pregnancy.

The Surgical Treatment of Tuberculous Ulcers of the Nasal Septum.—Onode (Medical Press) says that tuberculous disease of the septum as well as other parts of the nose occurs primarily with considerable frequency.

The nose is particularly exposed to infection through the air and this so especially true of the septum. Its mucous surface is subject to frequent abrasion. The site most often invaded by tuberculosis is the cartilaginous part. It may appear in the infiltrative, ulcerative or proliferative form. The first of these may remain latent for a long time—later causing ulcers covered by granulations. Perforations of the septum with raised edges are suspicious of tuberculosis. Tubercle bacilli, caseation, and giant cells determine the diagnosis, although it is not always possible to find the bacilli in tissue.

Treatment consists in cauterization or removal of tuberculomata with the snare. Sharp spoon curettage may be combined with the cautery. Relapses are frequent and are due to overlooking latent patches of disease or to bacilli remaining in the tissues.

Radical operation, by splitting up the nose, is described as necessary in some cases, but endonasal removal of the diseased parts is usually sufficient. An interesting case which developed general tuberculosis two years after an apparent cure of the primary lesion on the septum is described as among the author's experience.

Calcium Lactate in Eclampsia.—Halford (Australian Med. Gazette) says that the administration of calcium lactate in generous doses has been found most useful in eclampsia and eclamptic symptoms, as well as in the albuminuria of pregnancy, which the author considers to be due to paucity of calcium content of the blood. The salt is given in one gramme (15 grain) doses every four hours until the symptoms abate, then less frequently. In dangerous cases, where oral administration would involve too much delay, the author advises intravenous injection of a litre of warm saline solution containing about 0.6 gramme (10 grains of calcium lactate.

Collargol in Cystitis.—Gramenitski (Roussky Vratch) says that thirteen cases of cystitis, of varied origin, were treated by cleansing the bladder with 3 per cent. solution of boric acid followed by intravesical injections of collargol, 100 c.c. of a 1 per cent. solution being used, and this being retained until the next micturition. In two cases of chronic cystitis, one of gonorrhœal origin and one due to prostatic hypertrophy, the patients were able to retain only 50 c.c. Most of the cases were successfully treated; in one case of tubercular cystitis, in which both kidneys were in-

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volved, the result was negative, while in another similar case, involving one kidney only, marked benefit was observed on the tubercular infection of the bladder. Collargol is, in the author's opinion, valuable in cystitis when the process is limited to the bladder.

Veginal Myomectomy.—Thorn (Monatssch. f. Geburtsch. u. Gynak.) favors the vaginal enucleation of fibroids whenever possible. His method of choice is total removal of the uterus by the vaginal route, not only because of the difficulties in the management of the wound cavities left after enucleation, but also on account of the chances of leaving behind small fibroids which might subsequently increase in size. The writer has performed vaginal enucleation in seventy-nine cases without a death, although in twelve of these there was a formation of tumors from small growths which had been overlooked. Total extirpation by the vaginal route was done in one hundred and seventy-five instances with three deaths, two from pulmonary embolism and one sepsis. Altogether, he has performed 255 vaginal operations for myoma, with 1.18 per cent. mortality. In nine of these the operation, begun from below, had to be interrupted and laparotomy performed. Abdominal myomectomy is indicated for the removal of solitary tumors or favorably situated multiple growths which can be easily extirpated without any severe injury to the uterus, but are too large to admit of the vaginal procedure, also for myomata of the pregnant uterus requiring operation. In his opinion, however, the abdominal method has only a limited field and is being more and more displaced by the vaginal.

Pathology of Chronic Parenchymatous Metritis.—Asserto (Folia Gynæcolgica) examined fifty-four cases in which the organ had been removed. The writer divides them into two types; thirty-four of pure metritis, and 23 secondary to some other genital affection. Uteri of the first type were elastic; those of the second were harder. There was a difference between the conditions found in the two types. All were increased in size with thickened walls. This was due to an increase in the amount of uterine muscle in the first type, but with an added increase of connective tissue and alterations of the vessels; in the second there was atrophy of the glands, leukocyte infiltration, and sclerosis of the vessels and stroma. These variations in the lesions will account for the variation in opinion with reference to the condition which is found among those who have written on this subject. In women over forty years of age these changes sclerotic nature are not pathological. The author believes that the conditions found are not an indication of inflammation. In the vessels the most frequently altered portion is the media; the intima may be thickened, or the advantitia may undergo hypertrophic changes. Between the two types are seen transition forms which show that one passes into the other. The conclusion is that this process is not a true inflammatory one.

Intestinal Incarceration in Inguinal or Fermoral Hernia.—Riedel (Deut. Med. Wochensch.) says among 210 patients with incarcerated hernia operated on he found a short coil of intestine to be caught in the internal inguinal or femoral ring in four instances. This condition results from an intestinal coil being driven into the internal ring or proximal portion of the hernial sac by forcible cough. The aperatures must be especially narrow, as otherwise the intestine would be driven further down. In the diagnosis the following points are to be remembered: (1) A coil of intestine can become incarcerated at any time in the proximal portion of the hernial canal. (2) Such incarceration may occur spontaneously. (3) A tumor develops on the inner side of the abdominal wall opposite the internal inguinal or femoral rings, of the size of a walnut to a small apple, extending backward into the abdomen. (4) The symptoms set in immediately with severe vomiting; at first distinct peristaltic movements of the coil are perceptible, which later subside when peritonitis has developed. The tumor also disappears as meteorism increases. (5) The external hernial ring shows nothing abnormal, and even on introduction of the finger it is ordinarily difficult to feel the strangulated intestine, because it is situated too high up.

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The Nurse Question.

In the April number, we gave an editorial opinion on the subject of nursing, lauding the trained nurse but lamenting the fact that the remuneration which she expects puts her out of touch with the masses, where, after all, we find the greatest demand for both physicians and nurses. Since that editorial was put in type our attention has been called to opinions in a recent number of The Trained Nurse and Hospital Review, from which it seems there is a bit of trouble in the nurse ranks over the matter of registration. The object in registration from the nurse standpoint is altruistic enough and is intended to weed out the correspondence school methods of learning the business, and to in other ways improve the standard of nursing in general. But the great weakness of registration seems to be that it makes no effort to improve the lower grade nurses on whom the mass of the public must depend for care. We believe the registration of nurses a matter to be commended, but any attempt of any part or parcel of the nurse fraternity to assume a dictatorial role with a view to securing hospital control should be stubbornly protested.

We wish to reiterate our previous assertion that physicians should educate more women—and men, too, for that matter—into plain or domestic nurses. The nurse is not supposed to supplant or take the place of the physician. Who will not agree that the time required to be metamorphosed into a trained nurse is too long? She pays well in time, money and energy, for her acquirement and naturally expects good remuneration. On the other hand, young and qualified physicians who have had a long and arduous struggle to complete their medical education, often do not get compensation commensurate with their ability until they have had a long try-out in undesirable fields of practice. It is easier for people in moderate circumstances to employ the best and highest-priced physicians than it is for them to enjoy the services of qualified nurses. While all are agreed that the expense of employing the trained nurse is none too great for well-to-do people, yet the fact has been frequently pointed out that training schools for nurses should have a certain number of its best nurses free to care for persons of moderate means, and even for charity cases.—Medical Summary.

Pubiotomy in the Treatment of Labor in Contracted Pelves.

As compared with Caesarean section performed before the onset of labor, or early in labor, pubiotomy presents no advantages either to the mother or the child. When we compare it, however, with the induction of premature labor the question is more difficult; the immediate danger of pubiotomy is certainly greater, and pubiotomy is likely to be attended or followed by a number of serious complications which are entirely wanting after the induction of premature labor. On the other hand, pubiotomy has a fetal mortality of not more than 7 per cent., while the induction of premature labor in pelves with a conjugate less than from 3 3-5 to 3 3-4 inches (9.1 to 9.5 centimeters) is likely to be followed by a fetal death-rate of at least 25 per cent. The right solution of the problem appears to be as follows: In any case in which it is considered inadvisable to perform Caesarean section, or in which this operation is rejected by the patient, and in which the induction of premature labor has been followed by the birth of a still-born child on one or more occasions, the patient may be allowed to go to full term, and, if necessary, pubiotomy may then be performed. An additional advantage of this plan would be that in many cases the necessity for pubiotomy would not arise, since spontaneous delivery might occur, a result which is attended with the minimum of risk to both mother and child. Although it is quite true that in the average pregnant woman the operation of Caesarean section is an easy and safe one, yet pregnancy does occur from time to time in women in whom any abdominal section would be extremely dangerous, and such a patient might, if it were necessary, prefer pubiotomy to the destruction of her living child.

If the patient is in labor when seen and the head fails to engage or is arrested at the brim, then, if moderate traction with high forceps fails, in place of the forcible delivery with forceps of the head through the brim (an operation which entails a fetal mortality of at least 40 per cent.) or the performance of version (which entails even a higher fetal mortality), Caesarean section should be performed; while if the case is considered unsuitable for a late Caesarean section, then pubiotomy certainly may be substituted for craniotomy of the living child. Pubiotomy should, however, only be practiced if it is certain that the child's life has not been in any way imperiled, and in view of the possible serious complications it is not an operation suitable for private practice, and should only be performed in such surroundings as obtain in a hospital. —Blacker, in The London Lancet.

Gastric Affections.

The authors have conducted investigations relative to the action of silicate of aluminium upon the gastric secretions and upon disease symptoms resulting from abnormalities of secretion. As prepared under the name neutralon, this substance occurs as a fine, tasteless, odorless and insoluble powder. When taken into the stomach it reacts with the excess of hydrochloric acid to form silicic acid and aluminium chloride. The latter acts as a protective and astringent to the gastric mucosa in a manner similar to silver nitrate and bismuth, and has no toxic effect. In all cases of hyperacidity or hypersecretion, whether of neurotic origin or due to organic disease or injury, this remedy was found to be very effective in reducing the acidity, relieving pain, and aiding digestion. The results were especially good in persistent cases of hypersecretion with motor insufficiency. In a number of cases the drug caused symptomatic improvement where other remedies, as the alkalies, had previously been given with little or no benefit. Gastric hyperæsthesia associated with anæmia and chlorosis was favorably influenced in several instances. Excessive acidity in cases of gastric ulcer was also reduced, though the prompt cures frequently noted when large doses of bismuth are given on an empty stomach in this affection could not be produced with aluminium silicate. The drug was given in doses of one-half to one teaspoonful in three ounces of water, one-half to one hour before meals. No untoward symptoms were observed. It has not yet been determined whether this substance exerts an intestinal antiseptic influence or not.—Rosenheim and Ehrmann, Deutsche medizinische Wochenschrift.

Educational Requirements.

The real question of broad policy which easily held first place in the minds of the assembled members of the American Medical Association, including the House of Delegates, was the question of medical education. And no doubt this was also the subject in which the public was most directly interested. Immediately prior to the convention the report of the educational commission of the Carnegie Foundation had been made public, condemning as inadequate and unfit all but a very of the foremost medical schools in the United States, recommending the abolishment of all but these few, and urging the requirement of a university degree as a preliminary qualification for medical matriculation. This report, with its recommendations, caused considerable excitement among those who

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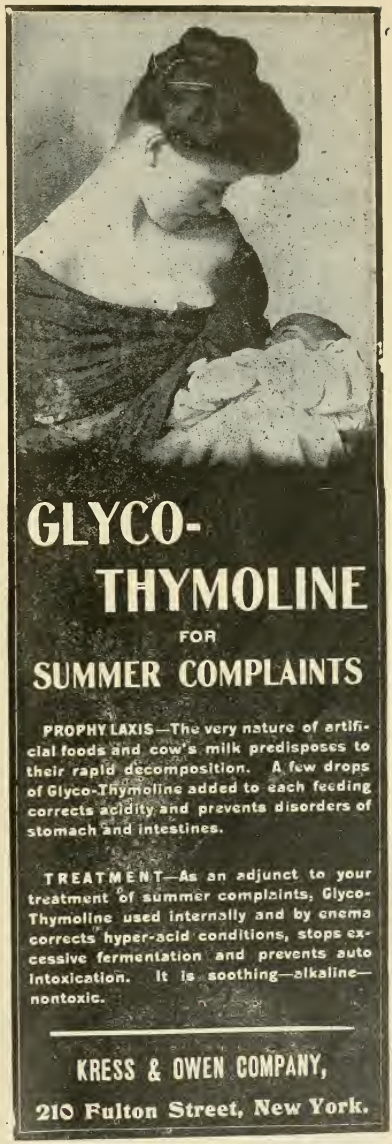
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are concerned, either directly or indirectly, in the education of medical students, and it was thought that the report of the Council on Education of the American Medical Association would be influenced by it to the extent of embodying some of its suggestions for adoption by the Association of American Medical Colleges.

The Council on Education is to be congratulated that it fell into no such error of judgment. It may be freely acknowledged that the influence and effort of the American Medical Association have accomplished great and commendable things in the way of elevating the standard of education in medicine in the past ten years. This is, indeed, the most praiseworthy achievement that the Association has to its credit. It is true that even in this direction its activities have not been altogether free from the taint of political intrigue, including attempts to control the entire educational system through the various State boards, which we have in times past sharply criticized, and shall continue to sharply criticize as often as such attempts are repeated. But, in the main, the influence of the Association for better and higher medical education has been good and salutary, and has, in co-operation with a steadily rising average of public intelligence, brought about a commendable improvement in the standard of medical efficiency. It would be thousand pities, now, to endanger the whole movement by a too impetuous reaching out after impracticabilities.

No one desires to check the rise of educational standards, in medicine or elsewhere; nor would such a desire avail anyway against the irresistable tide of public demand. Everyone recognizes the enormous advantages, both to himself and to the public of a thoroughly educated and well-equipped medical man. It is quite possible, as the Council on Education says, that the coming American standard will involve a four-year high-school course, a year or two in university laboratories, four years in medical school, and one year of internership in a hospital; and when the proper time for such a high standard arrives nobody will raise any objection to it. From a sheerly educational viewpoint, such a standard would be desirable here and now. But as practical men and women we must reckon with other phases of the matter than the purely academic phase. A stream can not rise higher than its source, and all artificial attempts to transcend this natural law can only be productive of artificial and impractical conditions. In spite of all our deliberations, and our inspections, and our recommendations, the measure of medical scholarship and efficiency is the status of public intelligence and knowledge. We can see to it that our standards do not fall below the public demand, and that the Council on Education has gone far to insure. We can even create high tentative and emulative standards of own, to inspire the medical student and arouse the popular desire for the best. But that is as far as we can safely or wisely go. We may not—nay, we can not—impose, as a legal requirement, upon any medical man a higher degree of efficiency than is compassed in the common-law requirement of "ordinary skill and care," as determined by prevalent conditions of society.

Let it be granted, without going into invidious personalities, that many of the existing medical schools of this country are inadequate and inferior. Nevertheless it is, in the long run, better that they all be allowed to exist, and be subject to the natural law of the survival of the fittest, than that any arm of the State be given power to dictate which shall not exist. In the main, a censorship such as some would propose to establish over medical education would be more dangerous and hurtful to medical science than even the inferiority which may be conceded in many of our schools. We say nothing here of the rights pertaining to the schools themselves, or of the more fundamental consideration underlying the whole matter that a censorship of schools is essentially incompatible with free government. We confine ourselves to the sheerly educational aspect of the subject, and point out that no forced elevation of educational standards can be either practicable or permanent.

For the present, the standard of preliminary requirements adopted by the American Medical Association and its tributary organization, the Association of American Medical Colleges, is sufficient; and the prevailing standard of medical colleges is adequate. We can not all go to Johns Hopkins, or to Harvard University, or even to Rush Medical College. Whether we would if we could is a question that might possibly offer two sides, incredulous as such an idea may appear to the adherents of these institutions. However that may be, we are assured that there is, and will continue for some time to be, a demand for graduates of less pretentious colleges. *Festina lente.* Make haste slowly.—Exchange.

The Thoracic Index in Pulmonary Tuberculosis.

Washburn says that the normal male thoracic index is about 70, and that an index very much above that is an abnormality, either inherited or acquired; that the normal female thoracic index is slightly

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lower than that of the male, and is therefore an evidence of a higher stage of physical development, tending to lesson susceptibility to pulmonary disease; that the great majority of patients suffering from pulmonary tuberculosis present a thoracic index in excess of the normal, instead of the contrary, and this is a mark of degeneracy, increasing liability to tuberculous infection; and that patients in eleemosynary institutions, in general, have thoracic indices higher than patients in private practice, a finding which might be expected from the fact that degenerates of all kinds are found in such institutions.—The Wisconsin Medical Journal.

Relation Between Alcoholism and the Ability to Nurse, Tuberculosis, and Caries.

J. H. Greeff has investigated a large number of families in respect to this subject and he says that the prospect of a nursing daughter is best if the mother has been able to nurse. Whether the father has been an occasional hard drinker or a steady drinker seems to make but little difference. The fact that he drinks at all, however, seems to have a slight influence in preventing the daughters ability to nurse. There is also apparently a relation between alcoholism on the part of the father and the grandfather in causing pulmonary tuberculosis and caries in the descendants.—Deutsche medizinsche Wochenschrift.

Double Infection with Measles and Scarlatina.

Brudzinski says that a perfect knowledge of the true picture of a double infection with measles and scarlatina is of the greatest importance in hospitals for children, at the beginning of the eruption as well as during the desquamation. The diagnosis of the infection will permit of isolation from the rest of the patients before infection has occurred. It is of equal importance in the schools. Children who have measles remain under observation but a short time, while scarlatina is infectious for a much greater period of time. Koplik's sign is of value when scarlatina appears first, and is complicated with measles occurring during desquamation. Cases of late infection are most frequent. When the two eruptions appear at the same time the effect is most severe, and complication most frequent. The two eruptions appear in different parts of the body, the measles coming out on the face and thorax and the scarlatina on the trunk and limbs. The measles eruption may disappear before that of scarlatina. The desquamation is more intense than when the diseases are separate. On the face is seen a typical measles desquamation, while the hands and feet show the large plaques of scarlatina. The desquamation of measles is prolonged beyond the usual time.—Archives de Medecine des Enfants.

Hepatic Cirrhosis.

Gastric hæmorrhage, with or without hæmatemesis, is frequently encountered in cases of cirrhosis. It is met with especially in the precirrhotic stage of Laennec's cirrhosis, becomes infrequent in the stage of ascites, and shows increased frequency again in the cachectic stage of the disease. In the prophylaxis of these hæmorrhages, sudden changes of blood-pressure in the portal system must be carefully avoided. To this end a milk diet should be prescribed, and the milk given only in small, frequently repeated amounts. Exertions as well as all nervous impressions which might react on the abdominal vascular tension, should be prohibited. Systematic saline purgation will do good, and the application of leeches may at times be availed of in order to reduce arterial tension.

In the event of actual hæmorrhage, hæmostatic remedies, and of vasoconstrictors or coagulants according to indications, must be resorted to. Ergotine, calcium chloride, gelatin injections, and especially injections of fresh antidiphtheritic or other antitoxic serum, are measures which may be employed with success.—Rauzier (Journal de medecine interne.

Weak Foot.

Steinhart defines weak foot as a state of weakness or partial or complete lengthening of the ligaments and the muscles that effect the union and support of the tarsal bones. The etiology is extensive; excessive use of the feet and badly shaped shoes are the principal factors. He makes the following classification: the simple weak foot, weak foot with eversion and rigidity, deformed weak foot, flat foot with eversion and rigidity, traumatic flat foot, and paralytic flat foot. Complications are varicose veins and exostoses or chronic inflammation of the inferior epiphysis of tibia. He divides the symptoms into subjective and objective. Prognosis is always good if properly treated. The chief prophylactic measure is the manufacturing of proper shoes. The treatment should be directed to the restoration of the arch of the foot.—Cronica Medico-Quirurgica de la Habana.

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The Machine Grows Stronger.

The machine was very strongly in evidence at the recent convention of the American Medical Association. There were not the least signs of its weakening. On the contrary, it showed every indication of increased and increasing power. We were about to say that the steam roller went completely over the opposition and turned around and went over it a second time. The more correct statement of the case is that there was no opposition. The opposition was conspicuous by its absence. "My policies" had the entire field, and the executive slate, from beginning to end, went through with a whoop. We watched in vain, and have since searched in the report equally in vain, for the slightest transaction, or even suggestion, that might be looked upon as a concession to the insurgent element. The only incident which might have had the appearance of such a concession, namely, the resignation of Dr. Simmons as General Secretary, was in reality one of the strongest and cleverly executed strokes of administrative policy, and served as an intentional slap in the face to the reformers, for it gave the House of Delegates an opportunity to emphasize his re election, and to make of it a deliberate rebuke to his critics. Nor, as far as this particular incident is concerned, have we any objections to offer. We have never felt, or expressed, any personal animosities in our criticisms even of the clique which controls the Association. Our objections have always been directed against the conditions and policies of which these men are the exponents; and unless these conditions and policies are to be radically changed, we would just as soon see Dr. Simmons as anyone else returned to power.

The representations and demands of the reform element of the Association were treated with the usual contemptuous indifference, and of course, under the prevailing mode of procedure, the insurgents had no opportunity of getting before the convention. The same supercilious attitude was maintained to all of the public interests, concerned with matters of health and progress, which do not happen to coincide with the policies and purposes of organized medicine. The man on the firing line of medical practice knows that these interests are exceedingly real, and have genuine claims to notice; he frequently clashes with them, and finds that their criticisms of regular medicine are often embarrassing and persistent; he knows, in fact, that the medical profession is the subject of increasing scrutiny and interrogation by an intelligent public which will not be put off and which demands the explanation of several standpoints assumed by organized medicine. But when he undertakes a pilgrimage to the annual convention of his organization, to hear from the oracles what the answer to these interrogations is, he is met with a conspiracy of disdainful silence upon them, and learns that the public welfare can be promoted "only by perfecting our already splendid organization, and by persistently disseminating its influence throughout society." All of which is very flattering to organized vanity, but will not avail the practitioner when these political leaders shall be called to account by the public, as they assuredly will.

Three important steps were taken by the House of Delegates, ostensibly separate and independent measures, but all of which dovetail into each other to form a further girder of strength in the executive machinery of the organization. First of these was an amendment offered to the constitution, providing that all members of county societies shall be *de facto* members of the American Medical Association, and requiring subscription to the Journal of the A. M. A. a necessary qualification of such membership. Second was a resolution of the House empowering the Board of Trustees to go into the journal publishing business, and to issue, in addition to the present Journal, periodicals in the various departments of medicine and surgery. And third was a recommendation by the Board of Trustees, adopted along with the rest of its report, that the committees of the Association having similar functions be centralized in a single bureau with a paid secretary and stenographer with headquarters in the Journal building.

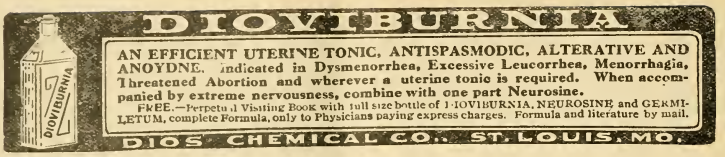
The net effect of these combined measures will be to enormously extend the scope and at the same time powerfully concentrate the executive control of the Association. It will

practically establish a monopoly of organization publications, sweeping out of existence all the State journals of medicine, and eventually shutting out all of those specialty journals which for ethical reasons dare not, or for economic reasons can not, defy the organization, while at the same time vastly increasing the circulation of the Journal of the A. M. A.—by means which would hardly pass muster with the post-office, it is true; but this consideration has never seemed to trouble the Association clique much. And this journalistic and membership monopoly is to be still further strengthened, and the cords of oligarchy drawn still tighter, by the centralization of all similar committees into a single bureau having its headquarters in the office of the Journal. The spirit of clique rule and arrogant autocracy could hardly be carried further. Yet it is all effected so quietly, so cleverly and so plausibly, that we question whether half the membership knows it has been done, and the other half will scarcely believe the significance of it now that we point it out to them.

In fine, the general impression to be gathered from the executive phase of the convention was that the machine is stronger than it ever has been. That this enormous strength is derived, as we have always pointed out, from the color of authority lent to the administration by the numbers and character of the membership, who, however, really know little of what the few in control are doing. That the bureaucracy knows the nature and extent of its power, and knows that its perpetuation depends upon the strengthening of its machine; hence the steps, such as above recounted, continually being taken to tighten up the machinery. That the machine is already far too strong to be overthrown by any outside agency; hence it can afford to, and does, laugh at criticism and opposition. But that it will eventually meet disaster by reason of its constant contraction upon itself. Unfortunately that disaster, when it occurs, will involve, in the public esteem, the innocent and unsuspecting rank and file of the Association, if not of the profession in general, unless the latter can be made to see the situation and to either break the machine (which we have already said we almost believe is unbreakable) or repudiate it.—Exchange.

Cardiovascular Apparatus in Nephritis of Childhood.

P. Nobecourt and Roger Voisin give results of observations of twelve children, from three to fifteen years of age, from the Hospital des Enfants Malades, Paris. Of these nine had acute nephritis, in several cases after scarlatina. In five cases cure resulted; one died of pneumococcic nephritis; three cases became subacute or chronic. The histories are given. The points of especial interest have reference to the cardiovascular changes observed. The most important changes in arterial pressure are seen in acute attacks of nephritis. There is often an increase in arterial tension, more or less enduring. This disappears when the nephritis is cured. In long cases, and when the disease becomes chronic, the pressure falls to normal again. In fatal acute nephritis dilatation of the heart may occur; when the disease lasts some time the heart remains large or returns to normal. In chronic nephritis the heart is large only in old cases or acute attacks; here enlargement is due to dilatation. Galop rhythm is rare and passing. The size of the liver is often increased. The mechanism is explained by the increase of water retained, which increases weight by edema, and thus causes increased arterial pressure; the increased work of the heart causes dilatation; the liver enlarges in its turn. Increase of pressure and dilatation are not necessarily of bad prognosis; a more insidious form is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often more tenacious.—Archives de Medecine des Enfants.

The Report of the Carnegie Foundation on Medical Education.

The most recent publication, entitled "Bulletin Number Four," of the Carnegie Foundation for the Advancement of Teaching, treating of medical education in the United States, makes what Horace Greeley used to call "mighty interestin' readin'." Whether it is also entertaining depends largely upon the direction of the reader's sympathies and college associations. Very naturally, those who are connected directly or indirectly with the schools so fiercely and contemptuously flayed by Mr. Flexner, the writer of the report, resent his attack bitterly; while those connected with the institutions receiving his faint praise—there is but one perfect school in the eyes of this investigator—whatever they think, say little.

The report professes to be based on a thorough and most painstaking personal investigation of every medical school in this country and Canada, made by Mr. Abraham Flexner, a professional critic of educators, or student of systems of education. In order to correct a very current misconception, we may say, in parenthesis, that this is not Dr. Simon Flexner of the Rockefeller Institute, but his brother. The doctor has troubles of his own with the antis of various ilks, and should not lose professional support through being made to answer for the sins of his brother. Neither, may we add, should the brother be judged by the essay which the president of the Foundation contributes by way of introduction to the report.

As a result of this investigation Mr. Flexner concludes that the country is suffering from a great plethora of medical schools—a fact which medical men have well known and deplored these many years; that many of the medical schools have not a sufficiently high standard either of admission or of graduation—another fact long well known; and that the facilities for teaching, in the way of apparatus, subjects for dissection, etc., are lacking in a number of schools—likewise a matter of common knowledge. What the writer of the report does not seem to have discovered is that all these schools, with the exception of a very small and practically negligible number, are in process of betterment, and that several associations of medical men and medical educators are working constantly to encourage and force the poorer schools to raise their standards and improve their teaching methods. When one realizes what the best of the medical schools were twenty-five or thirty years ago, and what tremendous progress has been made during the past twenty, and especially the past ten years, and when one remembers that all this uplift has come from within, without the help of any outside "Foundation," the work of Mr. Flexner seems somewhat a waste of effort and a needless expenditure of Mr. Carnegie's hard-earned money. All reforms, worthy of the name and lasting, come from within, and the interference of outsiders serves only to bewilder and irritate. The facts gathered and tabulated in this Bulletin of the Carnegie Foundation will perhaps be useful for reference by the real reformers, and had nothing yet been attempted or accomplished in the way of raising standards, the comments and admonitions of these self-appointed critics might have been useful as a goad. As it is, they will be very properly resented as uncalled for. The writers of the Bulletin are unfair in that they ignore what has already been accomplished and are silent as to the agencies at work in raising the standard of medical education. Whether this omission of a fact which, if properly presented, would prove the work of the Foundation to have been one of supererogation, was intentional or whether it is only evidence of a superficial and one-sided investigation, we do not know.

The Council of the Chicago Medical Society.

It is very evident that the profession at large is waking up in these days to its duties and its privileges. No one with half an eye can fail to see signs of this in the recent reforms that have been instituted in the Chicago Medical Society by the forces of democracy.

These forces crystalized in the organization of the Chicago Branch Workers' Association and its aim to obtain more repre-

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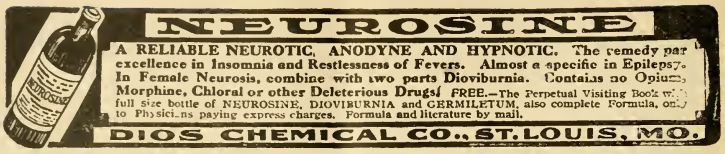
sentative government in county, state and national societies.

In Cook county this movement has gone far to place the permanent control of the society in the hands of the large number of intelligent, respected, earnest, ethical physicians, who make up the bulk of the profession, as opposed to the spirit of oligarchy which a few years ago was embodied in the rule of the few, who sought to keep the reins of power in their own hands. These aristocratic oligarchs framed the constitution to that end, dominated the council, largely monopolized the society programs, nominated the officers, applied the code of ethics to favor the prominent offenders and incidentally distributed what plums there were to themselves.

The subdivision of the society into fourteen branches has done much for the members of the society, both scientifically and socially. And yet there are those quasi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aristocrats who affirm that the branch organization is to be deplored. The branches, they say, are useless except for political purposes, and are doing little or nothing scientifically—"When these societies want anything worth while they invite us to address them." And yet, from September, 1909, to April, 1910, approximately 221 papers were read in these branches and 92 in the central society, a total of 313! This against a scant 100 papers given to the whole membership in the central society under former conditions. Even a glance at the titles and names of their readers is sufficient reply to so specious a plea. The rank and file of thinking and working physicians are being trained to review literature, report cases, discuss and write papers, and with a show of confidence in themselves as never before. As a by-product, no less important, the doctors in all parts of the society are becoming better acquainted and better prepared to solve these economic problems which united action of a large majority alone can solve.

The insurgent movement against oligarchy in matters medical has established equitable representation of the branches in the council, based upon numerical strength. Formerly each branch, no matter how large in membership, was given but one councilor, while each affiliated society of a handful of specialists was given the same representation.

Democratic, too, was the movement which gave the present modified Australian ballot system for general and branch elections. By it the safety and fairness of the ballot is guaranteed. The right of petition prevents a few men from dictating nominations for office and the referendum enables the voice of the general practitioner to be heard.

But it is very evident that there is strong and growing sentiment abroad against other unwise and unfair provisions of the constitution of the Chicago Medical Society. Provisions granting privileges which never should have been allowed when the special societies were taken into so-called affiliation. —Chicago Medical Standard.

On the Relation of Articular Rheumatism and of Septic Conditions to Tonsillitis.—Schichhold (Muench. Med. Woch.) says that articular rheumatism is frequently caused by the absorption of toxins from pus-pockets in the tonsils. In many obstinate cases of arthritis he succeeded in obtaining permanent cure through complete removal of the tonsils, after the pus sacs had been emptied. Even complications such as endocarditis and myocarditis, if recent, yielded to the treatment.

Curshmann supports Schichhold's statements, stating that he has for many years insisted upon the importance of tonsillitis in the etiology of septic processes in the body; he has always advocated the removal of suppurating tonsils during such conditions. This procedure had been found of value, especially in certain obscure forms of nephritis, which promptly improved after tonsillectomy.

The ordinary examination is not sufficient to determine the presence of pus in the tonsils; the pillars of the fauces must be drawn back and as much as possible of the glands laid bare in order to uncover the pus-sacs. The tonsils are very often not enlarged and have not given rise to any subjective symptoms.

The question raised by Schichhold has been proposed by Guerich in 1904; he claimed that practically all cases of articular rheumatism are produced in the manner indicated, and succeeded in permanently curing by tonsillectomy 98 out of 125 cases treated. This etiologic suggestion is interesting in many respects and promises to bring about the satisfactory solution of many pathologic processes which have been obscure hitherto

We are reminded in this connection of the claim made by Poncet in Paris, for more than a decade, that there exists a tuberculous form of rheumatism, especially of acute articular rheumatism. So far Poncet has only been able to adduce clinical proofs, which were not sufficient to substantiate his claims; but the ideas promulgated by Guerich, Schichhold and Curshmann may lead to a vindication of Poncet's theory. We have long known that tuberculosis may be produced by extension of the infection from the tonsils. It stands to reason that an absorption of the toxins (which must be freely formed in the tonsillar crypts, since these offer an ideal culture-nest for bacte-

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ria) must lead to disturbances wherever they may be deposited after having been taken up by the circulation.

The matter is of practical interest because it affords an explanation of many obscure septic conditions, and offers a ready means of treatment. However, care must be taken to lay bare the tonsil as far as possible; the glands adherent to the pillars of the fauces must be loosened, the pus-sacs are best emptied, after which the tonsils may be removed in layers, in several sittings if necessary. The tonsillotome, Schichhold claims, is valueless for the purpose, since it removes only the upper portion of the glands. Tonsillectomy is not an easy operation and not without danger. The method followed by him of slitting the glands, and then removing them in layers will probably recommend itself as best adapted for the practician.

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The St. Louis Meeting of the American Medical Association was most successful from every standpoint except that of attendance. Last year we spoke of the comparatively small number of medical men who were present at Atlantic City and did not hesitate to say that in our opinion the medical profession were delinquent. This year, with the meeting occurring at St. Louis, a city not only centrally located but offering every attraction as a convention place, an attendance of at least eight thousand was expected. Instead of this figure being approximated, the total registration only reached a little over four thousand! Such an attendance with a total membership of over thirty-four thousand is a sad reflection on the interest and enthusiasm of the individual member. More than this, as we have also said before, it is not a fair way to treat those who have devoted every energy to placing the profession on a properly organized basis. However opposed some may be to certain of the means employed—the "ring-like" methods of those in control having seemed at times perilously near to machine politics—it cannot be denied that the re-organized American Medical Association has been the most important factor in the recent forward march of the profession. It is entirely probable that gentler methods would have availed the same result, that a little less tendency to consider every bit of criticism or difference of opinion as pernicious antagonism or subsidized interest would have evidenced a broader, kindlier spirit. But that is neither here nor there. Great good has been accomplished and not only every honest physician but every man, woman and child is going to reap the benefit. Every physician, therefore, who is in sympathy with the work of the Association for the betterment of mankind owes it to himself, his fellow workers and his profession to be more than a passive, or indifferent member. In other words, he should strain every effort to attend the annual meetings and by his presence if in no other way, demonstrate his interest and personal influence. Circumstances occasionally force a general practitioner to stay at home. We are not referring to such men. Their number is small and if they are obliged to miss a meeting one year the same misfortune rarely occurs the next. It is the physician who stays at home because he does not care who hurts and handicaps the cause, and it is such men who are recreant to their duties and responsibilities in the onward march of their profession. Unfortunately they are in the great majority, or the aims and objects of those who have blazed the way would have been achieved long ago.

A few needed changes were looked for this year, for a great many physicians have felt that those in power would recognize the justice of the demand that the rank and file of the members in attendance at each meeting be given a larger voice in determining and directing the policies of the Association should be more than a mere figure head. The office should be broadened and carry with it a veto of questions of policy or the expenditure of Association funds. This would dignify the office and go far to remove the accusation that the Association is managed and controlled by two or three Chicago men. In the beginning it was doubtless necessary for a few to go ahead and forcefully carry out the measures needed to place the Association on a solid foundation. Now that this has been done, and the organization has grown to proportions that touch so many interests of humanity, it is time to spread the enormous responsibilities that have been created, and thus give to the great work of the Association the benefit of additional minds and enthusiasm. Plainly, the Association must take such steps to reach its splendid possibilities, or a period of decadence is sure to follow. We earnestly and sincerely hope that the men who have been big enough and capable enough to accomplish what they have, will be big enough and wise enough to merge their personal ambitions and interests in the greater aims and aspirations of the organization that will stand a monument to their endeavors.—American Medicine.

Respirazone, (Tilden's) contains no narcotics or other toxic elements, so that the physician is not deterred from pushing the remedy to effect in cases where expedite relief must be obtained.

The Charlotte Medical Journal

VOL. LXII CHARLOTTE, N. C., AUGUST, 1910. No.2

Therapy of Typhoid Fever.*

By John Hey Williams, M. D., Asheville, N. C.

In the thoughts that I shall present to you in reference to the therapy of typhoid, I shall not attempt to discuss its etiology nor its pathology except in so far as it may be necessary to elucidate the reasons for the use of any particular drug or mode of procedure. It is well enough to state that there are no known and fast rules for the elaboration of any special mode of treatment. No text book can teach us how to treat any individual case. As in tuberculosis, as has been so frequently and cogently urged, each case must be studied individually. The personality, the previous habits, vitality and special environment make up a totality upon which we base our treatment, and this treatment is more or less tentative. From year to year different features appear, governed possibly by meteorological conditions and changes in environment. The features presented in certain groups of cases last year are notably wanting in the cases appearing today, and we are studying the cases almost de novo.

We have learned that typhoid cannot be cured in the sense of jugulation by any antiseptic or other method. That it is a self-limited disease, the duration of which may be limited to a certain degree and its severity may be modified very largely. We can so conserve the vital forces of the body and so aid the natural processes of the economy that they may be able to make a successful fight against the invading foe. The patient may be kept in such comfortable frame that there may be little of which to complain save the tediousness of the confinement.

The careful study that has been devoted in the last decade to the pathology of the disease has resulted in a more comprehensive idea of the principles of metabolism and catabolism and the causes of disturbance of the balance between these forces, and has largely served to modify and direct us in the selection and application of therapeutic measures. We have learned that typhoid is not a specific infection affecting Peyers patches alone and confined to the intestinal tract, but that there is an invasion of the entire economy by the Eberth bacillus. That in the cases presented to us the intestinal glands are infected, is true, but that alone does not constitute typhoid. This being true, it is evident that no known application of intestinal antiseptics will abort the disease, but by their use we may control to some extent the multiplication of the bacillus in the intestinal canal and the consequent absorption of the resulting toxins.

There are also other toxins in the body, the result of defective tissue changes and the presence of the bacillus in the various tissues and organs of the body. With these conditions we may best deal by looking carefully after the eliminations.

In fact, elimination properly balanced by support in the way of carefully considered dietetics is the only plan or system that at all appeals to me and the means that best promote this system affords me the greatest satisfaction.

One of the best means to this end is the abundant use of water, both internally and externally. While I am an earnest advocate of the use of cold water, yet I must deprecate the harsh and barbarous procedure of the advocates of the full Brandt system. While it is frequently necessary to reduce abnormally high temperature, yet it is not always so, and we must not get into the habit of thinking that high temperature is an unmixed evil. "Fever in the toxic conditions is necessary and salutary because it is the result of intensified combustion and increased metabolism by which nature effects the expulsion of morbific elements." As Juettner concisely states, "Those who fear fever commit the fundamental error of confounding fever and high temperature. The temperature is usually the manifestation of the fever." They are not necessarily proportionate. Disturbance of the heat controlling centers as in thermic fever or heat stroke will result in violent hyperpyrexia, but this is not fever and is not dependent upon a fever process.

There will and must be temperature when the forces of the body are engaged in this great struggle. It is only when the temperature is abnormally high, and that point I fix at 103.5 or over; and even that is not high save by comparison; that the cold bath becomes necessary. Manges states that "the condition of the patient rather than the reading of the thermometer should be our guide." It is with me not so much the sudden drop of the temperature as the soothing effect upon the nervous systems and heat centers and increased elimination by the skin and kidneys that is sought.

*Read before the Buncombe County Medical Society.

For a very full, lucid and comprehensive discussion of the cold water treatment, I commend to you a careful reading of the excellent article of Hobart A. Hare in his edition of Practical Therapeutics. The action of the cold should be carefully watched by a competent and careful nurse. When there is a profound shock to the system with enfeeblement of the circulation in the extremities, the cold bath is contradicted and the desired result may be obtained by sponging and packs with tepid or even hot water. I am of the opinion that it is not so much cold water as plenty of water that is needed. Dynamic cases with full bounding pulse, congested conjunctiva, deeply flushed face and restless delirium will stand a greater degree of cold than the adynamic case, even though the temperature is higher. In addition to the use of water externally, I greatly favor the giving of high enemas of cold or tepid deci-normal salt solution in as large quantity as can be comfortably borne. While there may not be much effect in the way of washing out the typhoid toxins from the intestine, yet the stimulating effect upon the kidneys is in some cases very great. I have seen one enema of two quarts raise the excretion of urine from 24 to 46 ounces in twenty-four hours. As a depurating agent I greatly favor the use of acetozone. I give it in two grain doses every four hours in a capsule with as much subnitrate of bismuth, to prevent the deliquesence of the acetozone. I have found it to be a powerful diuretic; the best that I know in this disease; and in addition it has a decided effect as an antiseptic in the intestinal tract. It contains a large amount of nascent oxygen and there is a possibility of absorption of an appreciable quantity. In the way of intestinal medication, I sometimes use the Woodbridge tablets, No. 2, for convenience in prescribing. The small amount of calomel serves as a gentle fillip to the liver, helping largely in eliminating and getting the antiseptic action of the guaiacol, menthol and thymol. The antiseptic treatment has largely lost favor with its early advocates from the fact that they were working upon a wrong hypothesis, thinking that intestinal absorption was the only source of the toxic poisoning. To quote Manges again on this point: "The absorption of typhoid toxins from the intestinal tract plays a less important role than does the general production of typhoid toxins in the blood, spleen, &c.," arising from defective tissue changes.

When I find that the use of the cold bath is contraindicated by the failure of the capillary circulation even when aided by the use of moderate amounts of alcohol, I have no hesitancy in resorting to the use of phenacetine in doses of from two to five grains with caffein and hyosciamus. In addition to its antipyretic action, it has a valuable sedative action upon the nervous system and promotes the free action of the skin. I have never had any bad result from it and feel that its use has been too much neglected by reason of the unfavorable results following the unskillful use of the coal tar products when first introduced. The condition of the heart should be carefully noted from time to time and signs of weakening of the first sounds should be met by the careful use of strychnia and digitalis. I am very partial to the use of the Boergraeve granules of Digitalin and the Arseniate of Strychnia. I do not at all approve of the method of preliminary bracing the circulation because we may need it after awhile. It partakes too much of the set and fixed routine and should be avoided by the thorough and painstaking physician. There is another condition of the heart that demands attention, and that is tachycardia of greater or less degree. I have had recently two cases under observation in which the pulse stood for days at from 140 to 160. There was with me a fear of myocarditis, as both endo- and per-icarditis could be excluded by physical examination. I resorted in each case to the use of Norwoods Veratrum Viride in doses of from four to eight drops every four hours p. r. n. The result was most happy in the reduction of the pulse rate and tone and due solely to the veratrum, as no other drug was used. In adynamic cases with dry coated tongue, sordes on the teeth and a considerable amount of tympany, I resort to the use of turpentine both externally and internally. I regard this drug as a most powerful systemic stimulant and not as my jocose friends would intimate a cerebral stimulant. I have found other and better things for that purpose. With slow and feeble pulse, dry coated tongue, muttering delirium and tympanitic belly, I know of nothing that will compare with it. Turpentine is also possessed of marked antiseptic qualities and is somewhat carminative.

Moore (Practitioner, 1904, Vol. LXXVII, p. 138) is a great believer in the value of turpentine in the treatment of typhoid fever. It acts as a diffusible stimulant, intestinal antiseptic, prevents chest complications and meteorism, and also has an action in checking hemorrhage. He prescribes it in the following combination:

℞	Spiritus terebinthinae	3i
	Spiritus aetheris nitrosi	3iv
	Spiritus Chloroformi	3iii
	Emulsion amygdalae ad	oz viii

M. Ft. mistura. Sig.: Shake the bottle. Half an ounce for a dose.

I have tried the carbolic acid and iodine treatment, which was a few years ago so highly lauded, but have been thoroughly disappointed with it. In fact, I have no treatment as such and mention these simply as exemplars of the endeavor to find some specific. The question of too frequent movement of the bowels has to be considered occasionally, and I make it a rule to let them alone unless they are so frequent as to distress the patient and interfere with other needed things. Should there be any necessity to restrain them, I have found that Beta-naphthol Bismuth in from five to ten grain doses gives the very best result. Should there be a condition of constipation, I give small doses of calomel and if I do not have the proper result I favor greatly the use of castor oil and after a free purgation with this old and well tried remedy I have frequently had a marked reduction in the temperature. In case of hemorrhage I have found the ice coil to the belly and a full dose of morphia hypodermically with ten drops of adrenalin chloride solution gives as good results as anything at my command. Turpentine in ten to fifteen drop doses is also useful. It is of importance to know whether it is a hemorrhage from an ulcerated Peyers patch or whether it is an oozing of a disorganized purpuric blood through a disorganized mucous membrane. In one there is a fairly good chance of recovery if we can prevent recurrence. The other is hopeless and marks the near dissolution of the patient.

Sleeplessness, if serious, can best be relieved by the administration of ten grains of Trional, or better still the new synthetic compound known as Veronal in the same doses. In case of any idiosyncrasy where the drug is apt to produce any delirium, I have found Dovers powder in from five to ten grain doses to do all that is required. If there should be any great delirium with vigil, I resort to Elix. Valer. Ammonia in half ounce doses and usually with the very best effect.

Care should be taken of the mouth and it should be frequently washed with dilute Listerine, Infusion of Myrhh, or other efficacious inocuous disinfectant. I am satisfied that many of the cases of involvement and loss of the salivary glands might have been prevented by the prophylaxis of the mouth. Nausea may be best prevented, or rather relieved, by the use of cocaine muriate in doses of one-eighth grain with five grain doses of oxalate of cerium. Many cases of nausea may be due to the exhibition of full doses of digitalis. I have found that this drug is frequently very irritating to the stomach in some cases and cannot be tolerated. It may also arise from deficient elimination from the kidneys. Close attention to these factors will frequently outline our treatment. Symptoms pointing to perforation should be at once referred to the surgeon. I am saiisfied that a very large proportion of these cases may be saved by early operation. While it is true that this is a very serious complication, yet modern statistics give a very reasonable hope from early surgical intervention.

I favor the use of alcohol with my patients in this disease, and I give it freely as indicated. When the heart sounds are feeble and muffled and the condition indicates great depression, whiskey or brandy may be given in large quantities, and I advise that it be given for effect. Each case must be a law unto itself. I have found that in some cases four ounces will be quite sufficient, while in others I have found it necessary to give as much as from sixteen to twenty-four ounces in the twenty-four hours. There is a possibility that whiskey or brandy may not be acceptable to the stomach. In such cases champagne well iced will nearly always be well taken. With children I have found well made wine whey to be of great service, as it is both food and stimulant. The question of food is one that will interest us from the very beginning, and rightly so, as it is of vastly more importance than the question of drugs. Just here does the well trained and experienced nurse enter the field. To her must of necessity be largely entrusted the preparation and administration of such food as will be best digested and assimilated and best suited to the wants of the system. The general ideas as to the food may be suggested from time to time by the physician in charge, but the palatable preparation of it is in the hands of the nurse. Very few physicians give much attention to this question, and a thorough course from Mrs. Rohrer would be of service to all of us. It is impossible that there should be any fixed line of diet and it must be varied from day to day as may be indicated. A long list of foods is offered by most all of the writers on this disease, from which judicious selection may be made. It must be borne in mind that the feeding must be liberal. In no disease is careful, regular feeding of more importance, for it must be remembered that we have before us weeks of exhausting illness. The feeding must be varied from time to time, as it is easy to satiate the enfeebled appetite and bring about an intense disgust for all food. Among the principal foods that time and usage have proven to be the best that we have, I shall mention milk in any form, plain or with salt or lime water: Vichy of Apollinaris, peptonized or with white of egg; malted milk, koumiss or

buttermilk, wine whey, or sweet milk flavored with coffee or cocoa, which last should be used very sparingly, as it often proves to be very indigestible. Among the animal broths I may mention lamb or mutton broth, chicken broth or soup, sufficiently concentrated to jelly on cooling. Eskays food, malted milk, with or without somatose. Eggs soft boiled or jellied, raw with sherry or the whites with lemon juice and ice, ice cream with but little sugar and Uneeda biscuit in the form of panada. I do not favor the use of beef tea as there is so little in it that is of real use, and there is much to be said against it. It is a good culture medium and is frequently productive of foul ill-smelling diarrhœa. I favor the use of the animal broths only when there is no diarhœa and the stools are of normal odor. We must study to preserve the normal relation between the proteids, carbohydrates and hydro-carbons so far as possible and have the results carefully noted. I make it a rule to sweep out the bowels thoroughly with a good dose of castor oil if I find that any particular article has disagreed, whether there is diarrhœa or not. Just at this point, I should like to refer again to the question of milk in the diet. There appears to be a general idea that milk is of easy digestion and that any amount may be forced upon our patients. There is no greater fallacy, and much harm may be done by forcing large quantities into an atonic stomach where there is an almost total failure to produce the gastric juices and digestive ferments. I have known physicians to insist upon their patients taking from one to two quarts a day, and I have seen in some of them the most disastrous results. There is in some cases an almost total failure to digest this quantity, and large lumps of curds are formed which pass through the canal as so many irritants with all the irritation that would be produced by so much cellalose. I would as soon give raw cucumbers. When there is this atony of the secreting cells of the stomach, I favor the exhibition of dilute muriatic acid with nux vomica and pepsin. Very frequently we may secure the best results by this practice.

I have not spoken of the serum treatment of the disease as there is not as yet sufficient testimony in its favor. In fact, so far as my reading goes, the weight of the testimony is against it, except as an immunizing prophylactic.

I have gone over this matter rather discursively and have touched upon but few of the salient points. To cover the whole ground would be to write a book, and I am sure that I have already exhausted your patience with the platitudes that are so familiar to your ears.

A resume of the whole, amounts to these points:

1st. A careful study of the individuality of the patient.

2nd. A recognition that facts and not theories confront you.

3rd. That the infection is general and not local. That the infection is specific and, as in the Zymotic diseases, has a definite course to run, and the best that we can do is to modify and direct.

4th. That there is no such thing as specific medication.

5th. That we treat the patient and the conditions as they arise and not the disease.

6th. That the problem that we have to solve is the conservation of the forces of the economy till the disease has exhausted its virulence, limiting, so far as in our power, the destructive forces, eliminating toxic products, building up and restoring damaged tissues.

Surgery of Infantile Life.

By Stuart McGuire, M.D., Richmond, Va.

The increased knowledge of pathology on the one hand with the recognition of more exact surgical principles and the improvement of surgical technique on the other, together with the possibility of doing safely today what would have been fool-hardy to attempt a decade ago, has greatly increased the field of surgical endeavor. In no department of our profession is this more strikingly seen than in diseases of infancy and childhood. Patients, who a short time ago were permitted to suffer with deformities or to die of acute diseases, are now promptly relieved of the one or cured of the other.

The general surgeon of large practice is constantly called upon to operate on infants for hare-lip, cleft palate, club foot, hernia, empyema, appendicitis, intussusception, spina bifida, foreign bodies in the esophagus and stomach, exstrophy of the bladder, phimosis, hypospadius, epispadius, imperforate anus, hypertrophic stenosis of the pylorus, etc., etc.

While it is true that a study of statistics will show a higher mortality from surgical affections in young children than in adults, it is certain that much of this mortality is not due to the operation, but is in spite of it. In the case of abdominal diseases, especially of inflammatory character, the mortality is in direct proportion to the duration of the disease. This is largely due to the lack of resistance to inflammatory processes from absence or insufficiency of the omentum; and in no small degree to the impairment of digestion and the great frequency of extension of the infectious organ-

isms through the lymphatics of the diaphragm to the lungs and pleuræ.

Samuel W. Kelly, in his work on Surgical Diseases of Children, says, "There should be children surgeons as well as children physicians, or it should at least be required that the surgeon extend his knowledge to pediatrics." I am not in entire accord with this statement, however, because infants require a wide range of operations and a man who limits his practice, not to a certain class of work, but to a certain period of life, will fail to acquire the experience necessary to give him operative dexterity and surgical judgment. Neither do I think a surgeon should devote special study to pediatrics. One specialty is as much as any one man should attempt, and mastery of two is more than but few accomplish.

After operating on a considerable number of babies, and after acquiring some dearly earned experience, I have come to the conclusion that the safest plan is for the surgeon to associate with him a child's specialist in every case of an operation on an infant. I now make it a rule in both private and clinical work to say to a mother who brings me her child as a patient, I will be glad to do the operation and care for the wound, but I know so little about infant feeding or infantile diseases, that I will have to get a specialist to look after the child. Without exception I have found this arrangement eminently satisfactory.

The preliminary examination of the child by the specialist should consist in ascertaining its history, especially with reference to hæmophilia, convulsions, enteric disorders and exposure to infectious diseases, together with a thorough study of the whole child. A careful physical examination should be made, not only of the affected part, but of the chest and abdomen. The urine should be analyzed. The blood should, in most cases, be examined, to determine the amount of hemoglobin and number and proportion of its corpuscular elements. If jaundice exists, the coagulation time should be noted. Before an operation of election, the diet should be carefully regulated and the bowels properly evacuated. Save when urgently called for, operations for deformities and other non-fatal conditions, had better be postponed till a reasonable time after exposure to some infectious disease of infants.

The preparation of infants for operation and their subsequent treatment requires special knowledge and attention, as they will not stand the usual starvation, purgation and sterilization before operation, and are liable to develop digestive disturbances, bronchial irritations, pulmonary, urinary and other complications after the ordeal is over.

After the operation, pain should be relieved, if necessary by the use of an opiate, preferably paregoric. Feeding should be promptly instituted and judiciously continued. Dressings should be frequently inspected and changed when soiled by urine or fæces. As a rule no effort should be made to keep the child in bed, but from the first it should be permitted to be on its mother's lap or carried about in her arms.

With reference to the operation itself, there are some special features which should be considered. The anæsthetic should not be commenced until every preparation is complete and the surgeon ready to begin. Enough should be given, but no more. Chloroform, in my experience, is safer and more satisfactory than ether. It should be discontinued before the last stitch is tied.

The instruments should be small. Crile says they should be "Lilliputian in size." Anyone who has done a posterior gastroenterostomy on a three weeks old infant will recognize that a surgeon should have a special kit of tools for work on these little patients.

The danger of shock should be constantly in the surgeon's mind, for while in infants less than three months old, on account of the rudimentary nervous system, shock is not as a rule so dangerous as in older children (Brophy), it should be minimized by handling tissues gently and avoiding loss of blood, loss of heat and loss of time. Incisions should be made with sharp instruments, dissections should be clean cut and not accomplished by blunt force, viscera should be carefully handled with a minimum amount of traction. Care should be taken to avoid hemorrhage by prompt and accurate hemostasis. Children are notoriously intolerant to loss of blood and hemorrhage is shocking at any age. Vessels should be caught when practicable before being divided, and all bleeding should be immediately and completely checked by pressure, torsion or ligation. The patient should be kept warm by having the operating room properly heated, by enveloping the limbs and chest in cotton batting, by the use of hot water mattress or hot water bags and by carefully avoiding wetting the sheets or towels in contact with the patient with solutions which soon become cold.

Lastly, avoid loss of time; not by breathless haste and the sacrifice of accuracy and completeness of work, but by rapid, skillful and systematic technique. There is always time enough to do an operation well, there is rarely time, however, for consultation due to doubt or uncertainty. Speed in surgery is more the result of mental de-

cision than of manual rapidity. There is no class of patients in whom quick and correct decision put into action by swift and gentle manipulation will show better operative results than in children, provided they are operated upon by a surgeon of experience and treated by a competent pediatrist working harmoniously together.

Medical Legislation.*

By Benjamin K. Hayes, M. D., Oxford, N. C.

Of all classes of men there are none whose labors are so singularly and peculiarly directed to the betterment of mankind as that of the physician.

The minister may accomplish a wonderful amount of good,—but no man will say when one joins a particular church that it is necessarily better than any other church.

The individual lawyer may possess wisdom and virtue, but he does not claim that every cause which he advocates is right. If so the lawyer who opposes him must always be in the wrong.

The same thing is true of the soldier, the editor and the statesman. To say that any such class of men is always in the right, even in their aims and purposes, is to put an equally large opposing class always in the wrong.

But the physician,—whose fight is directed exclusively against pain and disease,—can never be in the wrong save from error in judgment or by proving false to the high ideals of his profession.

Last year I listened with profound interest to a paper read before this society by Dr. J. M. Templeton, of Cary, under the caption, "The Legal vs. the Medical Profession". I have twice re-read this paper within the past few weeks, and if there is any member of this Society who has not read it let me advise him to do so at the earliest opportunity. It may be found in the Transactions of 1909, and while you have the volume in hand turn to the report of the Secretary of the Society and read that. And then as your interest in an organized profession increases, turn to the Transactions for 1908 and read the President's Address for that year.

To the reader of these papers, and to wide-awake and public spirited physicians throughout the state, it is clear that the Legislature of North Carolina is not in sympathy with the medical profession. It does not appreciate our aims and purposes.

If any man among you questions this statement let him attend but one session of the Legislature and listen to the discussion of any medical bill that is presented.

Within the past few years the Christian Scientists went before the Legislature and their wishes were granted. The Osteopaths went before the Legislature and their bill is now a part of the laws of the State. The Optometry men went before the Legislature and now they stand upon an equal footing before the law with ourselves.

Last year members of the Board of Medical Examiners introduced certain bills for the advancement of medical standards. The Committee on Health was composed largely of doctors and through their influence the bill passed the Committee without a dissenting vote. But when it was introduced upon the floor of the Legislature it was crushed. I listened to the discussion of this bill and it was clear that the men who opposed it were wholly ignorant of its significance. One gentleman said, "I am opposed to granting doctors any more power. They have too much power already". Since that time that man was shot down by the bullet of a would-be assassin. I never learned what doctor was called to attend him. I do not know whether he sent for an osteopath to rub the wound, or whether he invoked the prayers of a christian scientist, or whether his sight bedimmed by loss of blood was restored by an optometry spectacle vender. Such thoughts are too absurd for consideration.

But what I have often wondered in all seriousness is this; did that man as he lay in the very throes of death, and turned his face upon his trusted family physician, knowing as he must have known that his life depended upon the skill of that physician,—and knowing further that every nerve and fiber in that physician's make up were being devoted to his restoration to health; did that man in his hour of direst need feel no compunctions of conscience for the unkind words which he uttered against the medical profession? Does that man still think that doctors have too much power?

What are the aims of the medical profession? To prevent disease; to ease pain and to prolong human life. Is it possible for mortal man to attain too much power toward the accomplishment of these ends?

Has the medical profession so prostituted itself as to lose sight of its former high ideals? The charge is too absurd for refutation.

Without the sanitary safeguards which the medical profession has placed about every home in this country modern civilization would not be possible. And yet, in the face of our labors for the public good; in the face of our labors for the individual poor; in the face of the fact that the very men who condemn us are the first to invoke

*Read before the recent meeting of the North Carolina Medical Society held at Wrightsville, N. C.

our services when they are in trouble! In the face of all these conditions men with political aspirations stand in public places and revile us with no other end in view than the hope of winning votes. And when election time comes we walk up to the ballot box and cast our votes for these same men just as a sheep killing hound will follow his master upon the chase with the blood of the sheep still upon his lips.

"Strange" do you say "that the medical profession is not appreciated". There is nothing strange about it save our own apathy and indifference. Look at the matter from any point you will the fault is with ourselves. So long as we are torn asunder by our own bickerings outsiders may insult us with impunity. When lawyers or merchants or bankers or railroads desire legislation they get together and work for it as a unit. And when you strike one lawyer you strike them all. When you strike one merchant you strike them all. When you strike one banker, or one railroad or one butcher or one barkeeper you strike them all. But let the foremost demagogue in the state stand in a public place and abuse some doctor, and other doctors will come flocking around him, patting him on the back and say, "Yes, a d—— old fool, you served him right".

But once let a united profession bring its full power to bear on any question,—assuming of course that we have the right on our side,—and neither legislature nor supreme court nor any other body can stand against us.

A single illustration will make my meaning clear. In my home county a man who for fifteen years had been in the drug business became a candidate for the office of Register of Deeds. As a druggist he had not only become well acquainted with every doctor in the county, but had made them all his warm personal friends. He led the county, and the people said "the doctors did it".

Had the members of the Legislature believed that the passage of the Optometry bill or the Osteopathic bill would have turned from them the political following of twenty-five percent of the doctors throughout the state those bills would never have become law.

We have tried reason; we have tried education; we have tried to make clear the high ideals of our profession, nor have our labors in this line ceased. But would it not be well for us to try in connection with other things the moral influence of votes?

Within the past sixty days two thousand doctors in North Carolina have been approached thus: "I say Doc, I'm going to be a candidate for the next legislature, and I want you to vote for me. And, say, I want you to put in a good word for me as you ride around the country. You know you've got a lot of influence, Doc, and if there's anything you want down in Raleigh, just let me know".

How many doctors have met this approach with the rejoinder,—"Will you do all in your power to put a stop to medical fraud and quackery? Will you help maintain high medical standards? Will you try to prevent all unqualified men from practicing medicine, regardless of whether their practice is confined to rubbing, giving electricity, fitting spectacles or vending secret remedies? Will you advocate all sanitary reforms, and see that the State Board of Health receives an appropriation sufficient to accomplish its work?"

How many doctors in North Carolina I ask, have opened their mouths to prospective candidates along this line? It would require no supernumary digit for them to be named upon the fingers of one hand.

The greatest danger which confronts us is not the quack nor the charlatan. It is the ignorant, the indifferent, the immoral, the drunkard and the "dope fiend" within our own ranks. This class can never be eliminated, but it can be curtailed by lending your moral support to your Examining Board in its efforts to maintain higher standards.

In this age of "pathies" and "isms" let no man think that the medical profession is in danger of losing its prestige. Abolish your Board of Medical Examiners if you will, disband your societies, repeal every medical law upon the statute books, consign the State Board of Health to oblivion and throw wide open the doors to the ignorant and the pretenders and the same men who lead in medical practice today will remain in the lead then. The law of the "Survival of the Fittest" holds in medical practice as elsewhere, and it is not for the successful practitioner of medicine but for society as a whole that medical standards, both ethical and scientific, need to be advanced. This is our contribution to civilization, a divine birth right which has been placed in our keeping. Let us press forward to the mark of our high calling, and work collectively for the attainment of those high ideals for which our medical forefathers labored as isolated individuals. Let the Medical Society of the State of North Carolina become an engine of power for good, and when the call comes for higher and better medical legislation let us work for it as a unit.

Gynecological Operations in the Aged.*

By J. Ernest Stokes, M. D., Salisbury, N. C.

The results of the following Gynecological Operations in the Aged are not reported because they possess any special or an unusual pathological aspect; but rather to demonstrate the clinical feature that even after years of procrastination and long delays, such operations may be well borne, though occurring in the far advanced years of life.

The infinite term "aged" has been arbitrarily applied to those patients of 70 years of age and over, or to those patients just approaching the limit of life allotted mankind.

The patients consented to an operation at this later period of life, after they had previously refused surgical interference at some earlier period on account of fear of their age. In other words, it may be seen groundless their fears may be relative to age alone in deciding against an indicated operation.

Many patients will allow years to go by in suffering and inconvenience,—the lesion gradually becoming more and more extensive and the operation more and more imperative,—only to consent finally in their advanced life to accept the more extensive operation; though followed even then by a complete relief and restoration to health, which satisfactory result could have been enjoyed during those former years of doubt and fear.

Thus it will be seen from this table that all the patients were of an advanced life; as the ages range from 70 years up to 86 years of age; that the symptoms had been borne for more or less prolonged periods, as in the case of patient No. 2 for twenty years,—and that even after a favorable

Report of Cases.

	Age	Prev's hist'y.	Menopause	Symptoms 1st appeared	Operation 1st advised	Reason of delay	Present condition	Diagnosis	Operation	Convalescence	Final result
1	75 yrs	Good	49th y'r	14 yrs. previous to operation.	3 yrs. previous to operation.	Patient's fear of age.	Feeble, nervous. Slight arterio sclerosis. Much pain from pressure.	Myoma Uteri Cystic Right Ovary.	Dec. 26, '02. Hystero-Myomecto-my. Cystotomy Rt.	slow, slight fever, rapid pulse.	temporary mental aberration; Living today excellent health
2	74 yrs	Good	40th y'r	20 yrs. previous to operation.	10 yrs. previous to operation.	Patient's fear of age.	Feeble, active signs of intestinal obstruction from pressure of tumor.	Myomata Uteri, with intestinal adhesions. Peritonitis	Jan. 26, '04. Hystero-Myomectomy, with release of extensive intestinal adhesions.	Normal.	Living at last report; two years ago.
3	86 yrs	Good	45th y'r	10 yrs. previous to operation.	Refused examination up to one year ago.	Patient's fear of age.	Chronic nephritis, marked arteriosclerosis: otherwise good.	Prolapsus Uteri complete.	Oct. 21, 05. Amputation of Cervix. Extensive resection of Vaginal outlet.	Very slow; otherwise normal.	Lived four years following operation; had an active life.
4	70 yrs	Good	47th y'r	10 yrs. previous to operation.	4 yrs. previous to operation	Patient's fear of age.	Good but incapacitated on account of protrusion of uterus.	Prolapsus Uteri; marked relaxation of Perineum. Ulceration of Cervix.	Suspension Uteri; Amputation of cervix, Resection of Vaginal outlet.	Excellent.	Living and well.
5	74 yrs	Poor	42nd y'r	5 or more years previous to operation.	3 yrs. previous to operation.	Patient's fear of age.	Very frequent urination Difficult locomotion.	Partial prolapsus Uteri, Relaxed peri-neum.	Suspension Uteri; Anter or and Poste rior Colporrhaphy.	Interrupted by great amount of flatulency; nausea,	Excellent; living and well.

that in many instances patients are more prone to accept an operation even after reaching, or after having passed into years of advanced life, than during those years between middle age and that period. So that statistics should be valuable in demonstrating to patients thus wavering how prognosis for an operation was offered, the operations were refused by the patients for a number of years on account of fear of being "too old." Finally even after these delays, and in several instances after the symptoms had been very definitely intensified, the patients not only stood the respective operations well, but were entirely relieved of all the existing symptoms and were enabled to enjoy years of health.

Though the number of the preceding cases

*Read by title before the recent meeting of the North Carolina State Medical Society at Wrightsville, N. C.

is very small, the result, however, corresponds very closely with the operation of ovariotomy in the aged. The result in this special gynecological operation has been very fully summarized in a table of 100 cases of ovariotomy in women over 70 years of age by Kelly and Sherwood in 1894,—and as these results exemplify so clearly the fact that the aged bear well the operation, we quote direct.

The first recorded ovariotomy in the aged was performed successfully by E. P. and W. C. Bennett, of Danbury, Conn., in 1861, on a woman of 75 years, while up to the year of 1888 the oldest case of ovariotomy on record was successfully performed during that year by Dr. John Homans, of Boston, on a patient 82 years and 4 months of age.

The main facts emphasized by the study of this table are:

First. That ovariotomy in the aged presents no essential differences from this operation in cases of younger years.

Second. That the rate of mortality from this operation on patients over 70 is 12 per cent.

Third. That the indications and contra-indications for ovariotomy in the aged are essentially the same as for this operation in general.

Thus it will be seen that age is no contra-indication to the operation and that the prognosis is extremely favorable in not only those patients of 70 years of age, but even in the very aged.

Skene Keith, in a personal communication to the above authors, says: "We like old women to operate on; they always do well." While Bland Sutton gives a list of eleven ovariotomies in women over 80,—all successful; a very striking record.

Weil in his "Survey of Ovariotomy at the Extremes of Life" notes that the oldest case he found on record was Thornton's—the patient being of the extreme age of 94. This patient made a good recovery. He further cites an interesting case of Owen's, where the patient was operated on in her 79th year for a parovarian cyst, with successful result. In her 86th year she submitted to a second operation for an ovarian cyst of the same side, with an equally successful result.

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The Importance of Diagnosis.*

By J. A. Williams, M. D., Greensboro, N. C.

The subject which I have chosen is one of grave importance to both the physician, gynecologist and surgeon. It is of no use for me to impress upon you the gravity of this great subject, as every one will agree with me that it is of gravest importance in order that remedial measures can be applied, following which will restore pathological conditions to a normal, rather than postpone or wait for graver conditions which require graver applications, making it more complicated in regard to restoration of parts to normal, or having to perform some serious operation to save life. The lack of ability on the part of physician or surgeon, I am not here to criticise. I will say, however, that the physician and surgeon when it comes to the point of application of remedial measures for the restoration of health are one and the same, and while we may both differ sometimes in regard as to whether medicine, mechanical or surgical operation is the proper remedy to be applied for such results, it matters but little. We are all human, and are working for the same great cause of humanity, and with the same end in view, (relief of suffering and restoration of health). Therefore, we must not stand apart with hands folded waiting for the other to act, but must get together, put our brains together and work together, that in the end we will be rewarded by the best obtainable results. The requirements of one are for all If we are all true, honest men, and at least honest with ourselves in the great profession we have chosen we will clasp hands in unity and work for the good of humanity. Therefore, I would like to impress upon you, especially the younger men of the profession, the importance of a thorough study of the cases which come to you. My experience of cases referred to me are not due to ignorance of the physician in making his diagnosis, but in the majority of cases to pure carelessness on his part, (the physician) going hurriedly over the case in a careless way, and jumping at conclusions. By being careful, examining carefully, going over all the organs of the body separately, eliminating any trouble there, you will eventually find what is wrong. There are none of us so proficient as to say on first seeing a patient just what the trouble is unless it is first so plain in its symptomatology that it is im-

*Read at the recent meeting of the North Carolina Medical Society at Wrightsville, N. C.

possible to diagnose otherwise. There are so many things if properly diagnosed in the beginning might, by simply doing the right thing at the right time, eliminate a great deal of trouble. To impress upon you the importance of careful study of the case, I will enumerate some which have recently come under my observation:

Case 1.—Miss C., age 24, came to me with following history from her physician: "Had a fall from a buggy some months previous, had retroversion with adhesions, would have to have a laparotomy and break up adhesions." She suffered with great pain at every period. Upon examination I could not find anything, except anti-flexion, small uterus, operation, divulsion. Sent patient home. It put both myself and physician in an embarrassing position, because she thought and had been impressed that she would have to have a laparotomy. She is still in the dark.

Case 2.—Mrs. G., age 30, had three children, had had a profuse leucorrheal discharge. Nervous, falling off; had had her period slightly for last three months. Advised to go to hospital sometime for curetting; finally went; remained in hospital for two weeks; returned to family physician with a trained nurse; advised to be kept in bed quiet and to keep a nurse with her; she had nervous prostration. I was called to see her; walked in dark room; found nurse and looked over chart; patient taking all kinds of bromide, etc., to make her sleep; very nervous. Examination of pelvis found to be about 3 or 3½ months pregnant; advised the family physician to send nurse home, and to tell the patient she was only pregnant and needed no operation, she would soon be O. K. Patient was out driving next day. The patient was simply crazy and nervous over the thought of having to have an operation.

Case 3.—Mr. J., sent to me for rupture and abscess of the appendix of about two weeks standing. Would have to operate at once. I put the patient to bed in hospital; examined him; found rigidity of muscles over lower illiac fossa, extending up to umbillicus, though on deep pressure direct over appendix, comparatively little pain. Pulled clothing down and followed tenderness and found testicle swollen. Had had orchitis two weeks; gotten out of bed and had gone home; was taken worse and sent for another physician, who through carelessness due to rigidity of muscles of illiac region over cord, and not getting proper history, diagnosed appendicitis and advised immediate operation. I told the family I thought he was better, and would by careful attention recover without operation. He did.

Case 4.—I was called to see Mrs. B. She had temperature of 104, pulse 130, age 30, four children. Had had four months before what was thought to be a miscarriage. Doctor had only seen her once afterwards, she was O. K. then; a few days after—a week or two—he was called to see her; had had a chill; saw her several days afterwards and treated her for malaria; about two weeks later had another chill, and again—about two days before I saw her—some pain in lower abdomen, not much. Periods were painful. Examination revealed a large mass—right side, abscess. Anæsthesia. Diagnosis correct. Opened and drained.

Now I could enumerate numbers of cases similar. Every one of these patients were from different physicians, and I will say good ones, as I know them all personally, yet they were simply careless and jumped at conclusions.

We all make mistakes, sometimes by being careless, and not making the proper study of the case. I have made them, and you have made them; maybe this paper will come to help us make less. In all of your obstetrical work examine closely after for tears—sew them up. If patient after delivery has a little temperature, ever so little, don't call it malaria and treat her thus, examine parts carefully, and see if there is not a little channel of infection, or a little piece of placenta left, or some little nick where an infection might start. If a miscarriage present, curette after and keep in bed for ten days. Don't in these cases let your patient go on getting better and worse and simply guessing it is malaria or a little intestinal indigestion (as at times they are clear of fever) and wake up later, four months to a year, to find your patient has a pus tube or pelvis full of pus. Make a careful vaginal examination in every case or you will regret it in the end. Lots of times false modesty in some will keep you from your duty of making the proper examination. The patient later suffering for it. Sometimes your sympathy for the young woman makes you put off an examination of the kind and perhaps you go on treating your patient medicinally for pains caused by displacements, until finally your patient is down with nervous prostration, or a chronic invalid, and has to have a hysterectomy, removal of tube, suspension of uterus, ligaments, etc., when at the time a little mechanical treatment (replacing and curetting, sewing up small lacerations, cauterization of ulcers, hot douches, etc.), might have prevented this graver and more serious operation. It is to the physician that the surgeon is due a great deal in the way of the proper history, the temperament of the patient, the durability, constitution

and condition of patient at time of operation, preparation previously and usually to the proper keynote to a full and complete diagnosis of the case, and the physician to the surgeon for the best possible assistance under existing circumstances to give him the best in his shop for restoration of health and relief from suffering. Therefore, we must always be closely associated and work together for humanity and for ourselves.

Cancer in Virginia—Trustworthy Vital Statistics the Foundation of Public Health—The Organization of a Cancer Association in Virginia.

By Stephen Harnsberger, M.D., Catlett, Virginia.

The only reliable statistics of cancer are those of mortality, as cases of the disease are not reported. The mortality statistics are dependable, as they are gotten from death certificates. The following data refer only to what is known as the registration area, that is, those cities and States which have satisfactory vital statistic records. The population of the registration area in 1908 was 45,028,767.

Number of deaths from cancer per 100,000 population in the registration area of the United States was as follows:

Year	Deaths
1880	26.05
1890	53.93
1900	63.09
1908	74.3

We see that cancer has increased in the United States from 26.05 per 100,000 population in 1880 to 74.3 in 1908. There were 33,465 deaths from cancer in the registration area in 1908, but as the registration area includes only a fraction over one-half of the population, we can well claim 66,800 deaths from cancer in this country during that year. We are told that in the registration area for all ages one man out of 32 and one woman out of 11 die of cancer. After the age of 35 one man out of 17 and one woman out of 8 die of cancer. During this period more women die in the United States of cancer than of phthisis. The age of greatest frequency is between 50 and 54, when one man in less than 14 and one woman in less than 5 die of cancer.

Number of deaths from cancer per 100,000 population in cities in Virginia:

Alexandria	Richmond	Norfolk
1903.....27.4	1903.....67.3	1903.....81.3
1904.....54.8	1904 .....77.4	1904.....63.5
1905.....47.9	1905.....66.8	1905.....69.0
1906.....95.6	1906.....90.5	1906.....74.7
1907.....61.4	1907.....79.1	1907.....73.0
1908.....76.3	1908.....73.2	1908.....74.4

From 1903 to 1904, only one year, Alexandria shows an increase of deaths from cancer of 100 per cent. From 1903 to 1906, or four years, an increase of 34.0 per cent., and a decrease from 1906 to 1908, only two years, 19.3 per cent.

Richmond shows an increase of 23.2 per cent. from 1903 to 1906, and an increase of only 11.8 per cent. from 1903 to 1907; a decrease of 17.3 per cent. from 1906 to 1908.

Norfolk's death rate was 81.3 in 1903 and 74.4 in 1908, a decrease of 6.9 per cent.

The population of Virginia in 1900 was 1,854,000; by 1910 it should be 2,000,000. This would give us about 1,500 deaths from cancer this year.

What does this mean? It means the urgent necessity of compulsory registration of births, diseases and deaths. And it further means, as Surgeon General Wyman says, that "the physician in private practice is an important factor. Indeed, he is the first unit, in that on him devolves a duty of reporting the facts that naturally first come under his observation."

TRUSTWORTHY VITAL STATISTICS THE FOUNDATION OF PUBLIC HEALTH.

If we want good water we go to the source for it. Likewise when we want a clear comprehension of disease and its concomitant characteristics we turn to statistics for it. Statistics incorporate facts extending over of time and their value consists not only in the fact that they afford physicians the opportunity to contrast the earlier with the later period but they also show how much has been already accomplished, and what is still to be hoped for and may potentially be achieved, by the application of sanitary science and preventive measures. Vital statistics mean less preventable deaths and less illness. In other words, vital statistics maintain or increase the number of effective producers, and in this way become a source of profit to any and every community. Though existing facts may be recognized, if they remain as isolated items of consideration, they are of conjectural import but if they are brought into a correlated series they are at once transformed into determinate scientific idea. No physician, however much his learning and unerring his judgment, can be as good physician without as with vital statistics. No health authority, however well equipped for and interested in his work, can adequately search for, or cope with, causes of diseases and death without vital statistics. While the elements of error cannot be fully eliminated from statistics, they give us our nearest approach to a positive estimate of existing facts and conditions. For instance, mortality statistics, immature and limited as they are, exemplify the remarkable steadiness associated with the increase of cancer in Virginia, the United States, the world over.

It is not enough to say that vital statistics in this State "are very meagre and unsatisfactory." It would comport more nearly with truth to say "we have no vital statistics." Plainly looking at the matter, what do we find? Nothing beyond mere numerical particulars from a few towns only in Virginia. Now, inasmuch as vital statistics stand at the very foundation of public health, isn't the attitude of this State remarkable? And does it not likewise indicate the supineness of those who shape and make our laws? Not that I wish to imply that the fault lies wholly at their door, for I am constrained to share the burden of blame with those who deserve it. This you will agree with me coincidently rests at the door of the medical profession itself. It's a sequence of the lethargy, or perhaps, and more likely, want of concurrent interest and therefore of concert of action on the part of medical men.

It is a fair statement to make that the progress of our State Board of Health during the past year has been commendable, and unlimited credit is due to the executive ability and efforts of those who have accomplished so much under obvious adverse conditions. That ample appropriations and powers in competent hands makes life more complete and with less of the scars of illness, notice what the Times-Dispatch says in regard to the August (1909) report on health conditions in Richmond: "This report shows that every dollar invested in protecting Richmond's health has borne compound interest from the date of investment." This same paper, in commenting on Virginia's schools, tells us that while the State's school ranking was thirty-fifth only four years ago, it is now eighteenth among those of forty-six States. From this step forward in public health and educational affairs, it is evident that our legislators must soon "take notice;" and this knowledge, as plainly as possible, emphasizes the fact that if we become a most important initiatory factor in the health and welfare of the State, that they will not long lag behind.

Furnished with trustworthy vital statistics, boards of health could always proceed with scientific thoroughness, their results coming out with something of the exactness of a laboratory experiment. The sphere of vital statistics is not fixed but is constantly expanding, concurrently with the increasing population. As each ripple swells outward their value enhances.

Enough has been said to indicate that it is unquestionably evident that our knowledge of the prevalence, etc., of cancer and other diseases cannot be gained from our present requirements of registration and I therefore respectfully submit for your consideration what seems to me the only feasible and near-at-hand plan of lifting us out of our present embarrassing dilemma. No useful purpose will be served by waiting. To the physician, whose efforts lie in working to restrain the ill-effects of disease, time counts for everything. Legislators alone can look on with complacency, inasmuch as they, in their position, remain untroubled by the effects of disease and its mortgage on life. From both a public health and an economic standpoint, this matter appeals for just consideration. Then how shall we proceed? What shall we do? The law of action is ours. As the matter stands, it naturally falls in the domain of the profession, and to the profession we have therefore in the first instance to look; and unless we are here led in the right way, we cannot expect to be placed upon right ground for dealing with the problem before us.

Evidence in every direction unquestionably shows that the enactment of salutary laws runs concordant with the interest present in the medical profession. The condition as it exists in this State (and elsewhere) is in antagonism with the showing of all modern advance in medicine and in spite of the advance of knowledge that has taken place. No one can question the assertion that it becomes necessary, with the progress of time, for our laws to be shifted to a considerable extent lest they be devoid of force and utilization. If we can get the people, who are most concerned, to co-operate with us in bringing about a vigorous sentiment for this and other reforms we have at heart, we will have the strength to prevail, for legislators can hardly fail to consider the will of the people. Harmony in feeling and co ordination in action mean united interests—mean power—mean success.

THE ORGANIZATION OF A CANCER ASSOCIATION IN VIRGINIA.

Cancer is no longer to be regarded as a disease that alone concerns the surgeon and the person afflicted; it concerns every layman, philanthropist, economist—every well person.

Cancer is a frequent disease—local and curable in its beginning; malignant and fatal if left to itself.

After a general review of every important recent article, both domestic and foreign, on the cause of cancer, I am led to the conviction that its etiology remains an unsettled question. But even in the absence of a known etiology we have hope, for an approach has been made in the direction of indicating with some probability, if not certainty, the relative value and quantitative character of trauma and prolonged irritation as predisposing factors. This rests

upon the assumption that trauma and prolonged irritation decrease vitality and resistance; and this assumption seems to have the assent of clinical observation and experience. We know that by limiting the opportunities for its production we can practically limit the incidence of the disease.

For instance, the four most frequently vulnerable points in the production of cancer are the breasts, the uterus, the lips and the pyloric end of the stomach. Why? Because these organs are the least rationally used and the most constantly abused.

To epiomise: The fact of a *painless* lump in the breast is a pre-cancer state and an indication for eradication.

Irregular or profuse uterine hemorrhages, after the age of thirty-five, is a pre-cancer state and calls for the judgment of a physician.

A scale or an innocent looking and *painless* nodule, especially if on the lip and in a smoker, is a pre-cancer state, and is always to be regarded with suspicion.

Gastric ulcers and other intra-abdominal conditions with the symptoms of "dyspepsia" and gradual loss of weight under forced feeding, otherwise not accounted for and in the cancer period of life, stand within the bounds of cancer probability and call for the best diagnostic acumen of the profession.

In these and the instances of pertinent cases not cited, but upon which my remarks are founded, the boundary line of safety comprises the present, for it must be understood that danger becomes at once proportionally apparent through the medium of delay. Today—tomorrow—this marks the line between safety and danger—between life and death. Absolutely there should be no tomorrow interposed.

Speaking upon the strength of my own observation and experience, I can unhesitatingly say that I have seen nothing to lead me to consider there is ground for surmising that delay means wisdom or even conservatism. As a matter of fact, such suggestions contribute to leading a person off in the wrong direction, and if put into practice could not do otherwise than produce a downright pernicious effect. Experience ought to throw a guiding light on the direction in which to apply our efforts for bringing a counteracting influence to bear on the public's opinion of cancer. "The public," Crile says, "is entitled to all the enlightenment necessary for self preservation." An indictment against our present supineness is naively put by the following text quoted from a working man: "There are some folks whom society has got to pay for either at the beginning or end of their lives, and it is much cheaper to pay at the beginning." This economic side of the question has its place, but it is primarily to save our mothers and wives and to make safe our daughters that I make this appeal, for the welfare of home, society and government rests right here. By making the public to understand the simple truths relative to cancer, knowledge becomes a source of power. It becomes wholesome and prophylactic by giving us command over pathological phenomena by enabling us, through the agency of a designed modification of conditions, to bring about a desired result. Let us then do something to blaze the way for a better knowledge by the public, and perhaps also by many physicians, of the danger-signals of cancer. Let us put on foot a cancer association, that we may the better reach the public. The substitution of knowledge and care for ignorance and carelessness is in substance the entire program. Working in harmony with the Medical Society of Virginia, and the State Board of Health, and supported by the press, the ever active and efficient co-adjutor of all progress, the effort will not fail of results. Then, let us join hands with the people and, like kindred drops, be mingled into one in confidence and in purpose. The dissemination of information concerning the incipient characteristics of cancer through equipped official representatives from an authoritative source, should and would inspire confidence and aid in neutralizing the doctrines of the unscrupulous and incompetent piratical quack, nature healer and others of like ilk—pernicious doctrines which now reach the fireside of every family in every community in this State, and, in the language of Milton,

"We double honor gain
"From his surmise proved false."

The Importance of a Concise Knowledge of Pathology in the Treatment of Meningitis and all other Diseases with a Report of a Case.*

By Dr. J. C. Grady, Kenly, North Carolina.

Mr. President and Gentlemen of the North Carolina Medical Society:

It is not my purpose to read to you an exhaustive treatise on Pathology, but to simply emphasize its relation to the treatment of disease and report to you what was to me a very unique and interesting case at the time it occurred and see if I can provoke from this body some comment on the merit or demerit of the management of my case. Now since brevity has wisely been termed the soul of wit, I am going to be as

*Read before the North Carolina Medical Association, June 1910.

brief as possible, but I want to say in this connection that I consider Pathology one of the most important branches of the science of medicine, because it is upon this fundamental principle that a correct diagnosis always depends, and I don't think there is any time lost in making a thorough study of the Pathology of each case we have to treat, for it is upon this one basic principle that the success or failure of our treatment entirely depends. It is a well known fact that goes without saying that the best Pathologists are the best Diagnoticians and the best Diagnosticians are the best physicians.

Among merchants there is an old adage that goods well bought are half sold and I believe it is equally true among physicians that a case properly diagnosed is already half treated and there is nothing that will aid so much in making a diagnosis as a careful study of the Pathology of each and every case.

And to illustrate to you how fatally near one can come to missing the mark in making a diagnosis and losing his patient through failure to early comprehend Pathological conditions, I relate the following incident.

On Christmas day, 1909, I was called six miles in the country to see a boy ten years old, previously healthy and vigorous of exceptionally healthy parents and grand-parents, with temperature of 101, pulse 120, slight headache, conjunctiva injected with bile, skin yellow, vague pains in the limbs and throughout the body, slight constipation and highly colored and scanty urine. I diagnosed a bilious attack and prescribed five grains of calomel to be followed by saline laxative the next morning. Also acetanlid with codeine to relieve pain and fever and told them I would call again on the second day, but should they need me sooner to let me know. On second day, according to promise, I visited my patient again and found symptoms all ameliorated, fever and pain nearly all gone, jaundice improved, bowels and kidneys acting freely and, as I thought my patient was safely on the road to recovery, I dismissed him thinking he would very soon be all right. To my great astonishment on the second night following, I was hurriedly called again to this same child and the messenger urged me to come quickly as they thought he was dying. I hitched my horse and hurried as fast as I could to his home, six miles in the country, one of the coldest nights that our climate affords to find my patient writhing in convulsions, which succeeded each other with lightning like rapidity. He now had a very high fever temperature 104½, pulse 160, respiration about 40, stethoscope revealed an extensive endocarditis with a clicking sound of the heart valves at every pulsation, persistent ophisthotonos and giving utterance to an unearthly encephalic shriek about every five minutes, upturned convergent and dilated pupils; general oedema of the whole body; jaundice more marked; urine suppressed; neither bowels nor bladder had acted since morning and I at once began to think that I had before me a picture of approaching dissolution.

Now it was I saw that my former diagnosis of two days before had gone wild of the mark and left me floundering in a sea of doubt. Here was seemingly an entirely new condition confronting me imperatively demanding instantaneous diagnosis and treatment and at this juncture I called aside both of the child's parents and began an entirely new investigation, admitting to them frankly that on my first visit I had failed to grasp the situation, for to every appearance the boy now had meningitis. So now I began again and went over the symptoms from the very beginning of his attack in detail impressing upon the parents the importance of their naming every little thing connected with his case and from this last and more rigid investigation, I learned that about three weeks previous the boy had an eruption which they called mad itch and which without any treatment disappeared in two or three days. I also learned that some other children in the neighborhood had a rash they called roseola, but which passed off without any symptoms of gravity except a slight sore throat and of course this information opened my eyes and suggested to my mind the possibility of scarlitinal nephritis which a urinary analysis confirmed beyond doubt, (with its usual train of concomitant inflammations of all the serous membranes in the body as the underlying cause of the meningitis and endocarditis. So at this point I awoke to the true pathological condition and accordingly made a sudden change in my tactics and began to treat the case as a nephritis complicated with meningitis and inflammation of almost all the other serous membranes, which proved to be correct and, which change proved to be none too sudden for had I remained a few more hours or perhaps minutes in darkness as to the real pathological condition of my patient, I am sure that he would have been gone to that bourne from whence no traveller returns and where they say medicines are not needed.

Immediately upon making up my mind that I had to deal with a case of scarlitinal meningitis and nephritis, I went at once to work and gave the patient a hypodermic of morphine hydrobromide grs. ⅛, hyoscine hydrobromide grs. 1-200 and cactine

grs. 1-120 every three or four hours to control the convulsions and relieve pain. I also gave a hypodermic of pilocarpine 1-20 to start the kidneys, skin and other secretions which proved effective after much persistance. When these remedies were discontinued, citrate of potassium with warm demulcent drinks were substituted together with hot baths, as hot as could be borne, every little while with ice cap continually applied to the head, also we blistered, the nape of the neck and applied turpentine stupes continually over the spinal column and pushed them almost to the point of blistering. The baths and diuretics kept up from day to day until the spasms ceased and the secretions were fairly well established. The morphine injections were also given at intervals of every four to six hours together with tincture of gelsemium, sodium bromide, cannabis indicia. Notwithstanding the actual convulsions subsided, at about the end of the first week, there remained for two or three weeks involuntary spasmodic contractions of the muscles of the left side of the body, involving the muscles of the eye and face and which finally gave away to profound paralysis of the affected side and which paralysis is still present to some extent. Incontinence of urine and constipation were also symptoms which were present for at least three weeks and were only relieved by catheterization and enemas.

Through the whole course of the disease strychnine and digitalis were constantly administered to support the heart and the general system. Artificial feeding per rectum was resorted to from the very first because of paralysis of the muscles of the throat and mouth interfering with mastication and deglutition, and also because of the congested condition of the brain.

I wish to emphasize the fact that I believe the administration of pilocarpine hypodermically had a most decided influence for good in the management of the case. I do not believe had this important item of treatment been omitted that the patient would have recovered, for it was the first thing that seemed to lift the blockade of the secretions and while no doubt the other treatment had a good effect, I do not believe without the aid of the pilocarpine that the other remedies would have been effectual.

I believe from this case, I have learned two wholesome lessons; one of which is the value of pilocarpine in promoting the impaired secretions in scarlitina nephritis and I have also learned that the thing of paramount importance is to look well in to the pathological conditions of meningitis or any other disease before we settle upon a diagnosis and begin our treatment, because I am sure that had I been a little while longer in getting hold of the right clue to the underlying cause of this particular case of meningitis I would have lost it.

Of course every one knows that no two cases of meningitis present parallel conditions as to the course symptoms and intensity and I am not presenting this case for the purpose of trying to introduce any new or special plan of treatment for my treatment was entirely empirical and symptomatic all the way through. Yet I do think the especially good effects I obtained from the use of pilocarpine over the secretions and excretions in this case worthy of mention. And I also wish to state that Church says that "pathological changes in the meninges when due to infection by extension are more or less circumscribed and limited to the neighborhood of the primary lesion." But that infections by the way of the circulation gives rise to a generalized meningitis which is most intense at the vertex of the hemispheres and may completely spare the basal region and from the final development of this case I think it belongs to the latter variety in which the cortex instead of the base of the brain was the chief seat of the infection, and hence it is to this favorable pathological condition more than to the treatment that I attribute the recovery of the patient yet I have had so few cases of this class to get well that I feel like claiming part of the credit for my treatment which I feel sure was largely instrumental in the favorable result, and did an immense amount of good after I got on the correct pathology and began to apply treatment in the right direction.

It is true that the case is not yet by any means entirely well but he is living and that is the strangest feature of it all, because neither myself nor anyone else who saw him during the first six weeks of his sickness had any thought of his recovery. It is now six months since the beginning of the attack and he came to my office only a few days ago for the first time, it being his first trip away from home. He is still weak and emaciated; his memory poor and his speech brok n; his eyes and face are still slightly drawn and he has to walk with a crutch on the paralyzed side yet he seems to be gradually gaining ground and under the influence of a good tonic massage, moderate exercise and the proper diet, I think that within a few months he will entirely recover his lost physical power but that he will probably never be mentally strong.

Interesting Case Actinomycosis Cured.*

By Jas. M. Parrott, M. D., Kinston, N. C.

Mrs. J., age 33, anglo-saxon, occupation housewife. Admitted to my service in our Memorial Hospital on August 19, 1907.

Family history, negative. Husband died several years before of what she termed "kidney disease and consumption." Personal history, other than usual diseases of childhood, measles, whooping cough, etc., negative. She was a large, portly, well-nourished woman, weighing perhaps 170 pounds, about five feet seven inches high. Eyes, ears, nose and throat normal; nervous system normal; heart, lungs, liver and skin normal. Urine, nothing of note; no excreta from the ears or nasal cavities. Blood, normal. Gastric contents normal.

In September, 1905, knees were sometimes somewhat painful; one knee not more so, however, than the other. There seemed to be no connection between this and the disease which I am about to describe.

History of present disease: In May, 1906, noticed a lump about the size of a walnut on the inner and posterior aspect of the knee. It was not painful, was very red, felt a little sore on touch. Two or three weeks later it became an open sore and began discharging, with a burning sensation. A "cancer" doctor was consulted, and after he made his applications it was very painful. A short time later and while there was right much discharge from this growth, another one redish purple appeared just above the knee, and on its outer aspect. In two or three days it softened and was pricked, and began discharging thick odorless serum in which floated innumerable pinhead yellow particles. In a short time a large sore and several smaller ones developed on the externo anterior aspect of the leg just above the knee, all soft and redish in appearance. Each one was connected with the other. This condition continued with more or less increasing severity, all of the wounds having sharp darting pains and burning as though scalded. There was no rise of temperature so far as the patient could detect.

At no time just before or after the beginning of this trouble, was the patient exposed unusually much to cattle, horses, et cetera. Neither she nor her people owned any cattle, and there was no history of "lumpy-jaw" in stock in her vicinity. Her work was outdoor farm work, together with such domestic occupations as washing and ironing. She had no sores or bruised places, or lacerations on her skin, and she gave no history of contact with any person similarly suffering. She was not exposed to excreta of cattle or horses, except occasional egg hunts in the stables.

When admitted, the patient presented on the left leg two or three large discharging ulcers, with more or less enlargement about or above the knee. One of the ulcers was about 2x3 inches, more or less round. They were arranged in a chain-like manner from the inner and posterior aspect of the knee to its outer antero-lateral aspect. Each ulcer was filled with a yellow cero-purulent discharge in which floated innumerable particles of pin-head yellow substance, somewhat resembling iodoform granules. Two lumps about the size of hen eggs were also detected near the above ulcer. Temperature was normal and remained so for about eighteen months, except certain slight reactionary rises after various operative procedures which were done from time to time.

Diagnosis: Actinomycosis. This was confirmed by microscopical examination of the discharge. Two days after admission, the masses were removed as extensively as though they were malignant. The wounds were dressed aseptically, and in three or four days were skin grafted. The patient was discharged from the hospital on September 22nd, 1907, improved as we thought. She was instructed to dress the wounds with powdered iodoform, and to return if it did not improve. This she did at various intervals (four or five times). On each return they were curretted or removed by clear dissection and dressed with powdered iodoform, ichthyol, pure carbolic acid and various antiseptics. In spite of all that could be done, and every treatment imaginable and otherwise was pursued, the leg gradually and persistently grew worse. She became very despondent, and, together with her family, even good physicians, insisted on amputation. This I hesitated to do because of the continued good health of the patient. She remained in the hospital each time from two days to one month, with varying degrees of improvement.

On January 26th, 1910, she was admitted the last time. The leg was worse. She was suffering severe pain, and her health was then showing some deteroriation from the constant pain, etc. On January 28th, under what I thought to be strict aseptic conditions, I curretted the wound once more and packed with powdered iodoform as I had done several times before. At 6 a. m., January 29th, the following day, she complained of being cold, severe cephalic and lumbar pain, and vomiting. Her temperature at 6 a. m. was 100.4, pulse 90; at 5 p. m., same day, her pulse was 120, temperature 104.6. The leg became violently

*Read before the North Carolina Medical Society at Wrightsville, N. C., June, 1910.

reddened and swollen, with streaks following the lymph channels. Temperature on the 30th at 1:30 a. m., 105, patient very restless, with marked anxious expression. The fever ranged with varying severity, with modifications from antipyretics, from 105.2 to 101 on February 4th, however reaching the normal that day. During several days thereafter, the fever rose at more or less frequent intervals, often going as high as 102½. In short, she had a remarkably severe attack of erysipelas in this limb. All special treatment of the ulcers was discontinued, and our entire attention directed to erysipelatous infection. When it had subsided, we found somewhat marked conditions in her leg, and when, on February 14th, she was finally discharged, the actinomycosis was almost well. The local use of iodoform at home was advised. She reported her leg entirely well by July, 1909, and when seen on February 17th, 1910, I am happy to say her leg was entirely cured. More recent reports show no relapse. I am sure she is well.

This case is remarkable to my mind for three reasons. First, I could obtain no history of exposure; second, it appeared primarily in the connective tissue beneath the skin just above and around the knee; third; after every imaginable treatment had proven of no benefit, though persisted in for two years, it was finally cured by an accidental infection with erysipelas. If another case should ever fall in my hands, I would not hesitate to infect it with streptococci-erysipelatus.

Dementia Praecox: Some Neglected Phases.*

By Jas. K. Hall, M.D., Assistant Physician, State Hospital, Morganton, N. C.

The past decade has witnessed the most unusual awakening in the study of mental diseases. Formerly all the written matter relating to insanity appeared only in publications intended for psychiatrists—formerly alienists read papers only before men whose work was restricted to the care of the insane. At the present time, however, we are entering into an era characterized by a marked tendency to bring the psychiatrist and the general practitioner closer and closer together. One can scarcely pick up a medical journal today which does not carry an article dealing with some phase of the problem of the care of the insane; the programme of no representative medical meeting is complete without a paper bearing on the subject of mental aberration. And it is to be hoped that the time will soon come when the asylum physician and the family physician will realize even more fully than at present how dependent one is upon the other, and that the welfare of the individual patient calls for their heartiest co-operation.

The more the psychiatrist knows about all the branches of medicine the better able he will be to treat the insane. The scope of his interest and investigation should not be limited to affections of the cranial contents and to the nerves which run to the brain and from it. Insanity, we all know, is not always due to primary brain disease. Perhaps the perverted function of the brain is oftener a secondary result of disease of another organ or organs. For this reason the psychiatrist should know all that it is possible for him to know of medicine in general. Mental disturbance in an acute or chronic illness is always a source of anxiety to the physician in charge and of distress to the family. In such cases the practitioner must be also a psychiatrist. All cases of mental disorder, of whatever kind, before they reach the asylum or sanatorium must be viewed by the family physician. And he is resourceful, indeed, if he be able to avoid giving the family some idea of the nature of the mental affection and its probable course. And the more nearly correct his diagnosis and his prognosis at that time the better physician he will be in the opinion of that particular family.

And all the interest in the insane is not confined to medical men. Sometimes this solicitude is fortunate for the insane; sometimes, I fear, it is most unfortunate for these helpless people. Almost every village has an organization whose laudable purpose is to render aid and guidance to all who are helpless or in distress. The mentally defective member of the poorer families properly comes within the scope of its activities and sympathies. The voter, too, demands of the politician more room for the insane and better treatment of them. Within the past three years my own State has expended through the hands of a commission appointed by the Governor a half million dollars in response to a demand of the people that the State shall provide suitable accommodations for all its mental defects. And before long we shall be caring for at least three thousand insane people at a per capita cost per annum of $155.00 or $160.00. The expenditure of so much money raised by taxation from all the people should awaken in them some interest in the people on whom it is expended. To the North of us the attempt to minister to those suffering from nervous or mental disorder is not confined to the members of the medical profession. The interest in these unfortunate people has resulted in the establishment in

*Read before the North Carolina State Medical Society at Wrightsville, N. C., June, 1910.

church vestibules of clinics presided over by those whose training could not enable them to distinguish the cerebrum from the cerebellum, but who feel competent to right the perverted function of a diseased brain by the laying on of hands and the speaking of gentle words. It is useless for us to attempt to dissemble the fact that we are not doing enough for those who have mental or nervous trouble.

It has occurred to me as strange in view of all the thought and the money that has been poured out without stint to improve the condition of those actively insane that little of a practicable nature has been done to prevent mental breakdown. We live in an age of prophylaxis. We administer anti-toxin to children to ward off diphtheria; municipalities spend thousands of dollars for anti tetanic serum; we vaccinate against smallpox; rats are killed to prevent an outbreak of plague; corn bread is not eaten for fear of pellagra; water is filtered or boiled to kill the typhoid germ; swamps are drained and the earth is made so dry that the mosquito is rendered a homeless outcast; and tuberculosis and uncinariasis are to be eradicated. But insanity, it seems, comes from within—it is endogenous—and no one can tell how or where to attempt to ward it off. In all other departments of medicine we hear much of prevention—less and less today of cure. In mental diseases we are taught little of prophylaxis, but recovery percentages are dwelt upon. Insanity, Death and the Judgment—these three are inevitable and unavoidable, so the teaching goes.

May one not ask why the child crippled by defective vision, defective hearing, or by defective somatic formation, becomes the object of a city's or a State's solicitude, and the chilk with a mind slightly warped must flounder along its way as best it may until it lands in an asylum, a reformatory, or a prison? But there are in the world many such children. For several years they are neither sane nor insane. They are slightly abnormal. They live in that vague and shadowy border land inhabited on the one side by the sane and on the other by the insane. And a little guidance or the slightest neglect or ill-usage during the period of transformation from childhood to manhood may determine whether they are to find that pathway which leads out into sanity and usefulness, or that other pathway which may make them objects of their State's care for the rest of their lives.

Psychiatric nomenclature is in a disturbed condition. Almost every alienist of standing has his own private classification of mental diseases. Most of them, however, recognize dementia praecox as a distinct clinical entity. There is a great deal of talk about how much or how little the term should mean; but practically all are agreed upon the existence of a mental disorder manifested in various ways to which this term should be applied.

And it is this form of mental disorder more than all others which lays its blighting hand upon the young. It develops in the second or the third decade—sometimes later. It places more individuals in hospitals for the insane than any other single cause. Of the admissions into the hospital with which I am connected more than 40 per cent. of the cases are dementia praecox. And most of these cases come not to tarry for a few weeks or for a few months, but for the remainder of their lives. The disappointment of parental hope and prognostic gloom reside in the term Dementia Praecox.

Can no measures be taken to prevent its appearance? What are its causes? Probably, first of all, defective heredity. This may manifest itself solely in the mental sphere, or, there may be associated obvious physical aberrations. Dissipation lends aid to its production; and so does mental and physical fatigue. An important factor in bringing to the acute stage many cases of dementia praecox is improper home government. The child may be too harshly or too laxly dealt with. Knowledge of the child's true character, and sympathy with its aims are often lacking in parents. All the children of the household, however much they may differ in temperament and in intellectual qualities, are improperly subjected to the same sort of control.

Dementia praecox develops insidiously. It is surprising when we study these cases carefully to find out how many of them in childhood were in some way peculiar. Some of them were precocious; others were dull. Many were shy and manifested a tendency to isolate themselves; others were bold and had little respect for parental authority; and not a few of them were cruel, tantalizing, vicious and thievish. Resistive and suspicious children are not rare. Some of these tendencies gone to seed with added symptoms make up many a case of dementia praecox.

What is to be done in the way of prophylaxis? The influence of vicious heredity cannot be stayed. Defective organic formation cannot be easily corrected. The child cannot be directly changed—anatomically or physiologically. The environment may be changed. Life after all is only a matter of adaptation—of living in more or less harmony with one's surroundings. The higher and the more satisfactory the life, the more complete is this harmony. The

normal individual, consciously or unconsciously, adjusts and readjusts himself to his surroundings almost every moment of his life. The mentally defective individual cannot do this—another must aid him—aid him to change those things against which he must react.

The age of puberty is characterized by new feelings and new aims. Some hypothetical organic substance or substances are liberated within the body and the individual rapidly passes from a child to a man. New desires are kindled; new hopes are born. The great philosopher of Tarsus recognized this and he was reviewing his own experience when he wrote to the Corinthians: "When I was a child, I spake as a child, I understood as a child: but when I became a man, I put away childish things." Unfortunately, however, many adolescents cannot put away childish things. And when the age of puberty is reached they start back over the mental road just travelled and end life years afterwards mental infants—and in an insane asylum.

In this pubescent period of life the family physician has a splendid opportunity to do valuable work in the prevention of mental disorganization. He can do this work directly with the individual child, or, more frequently and better, perhaps, through advice to the parents and the teacher. Unfortunately, the parents of many children showing early mental abnormalities are themselves far from sound in mind, and it is, therefore, impossible to expect them to exercise sound judgment in training their offspring. These unwise parents look upon peculiarities and perversities in their children as the manifestation of inherent badness. The rod is not spared. The child, especially if he be suspicious, and of the paranoiac make-up, evolves the notion that the hand of his fellowman is against him, and corrective efforts of this kind aggravate the condition. Mental disaster may be the result of improper educational methods. A precocious child in school may be spurred on by rewards and by an ambition overstimulated by proud parents and an unwise teacher, until the intellectual machine suddenly collapses. Many a locomotive can pull a long train of cars along the valley of the Catawba, but be unable to reach the Swannanoa tunnel on the summit of the Blue Ridge. The wise engineer, however, will not take it out on such a trip. If it be defective beyond rehabilitation it will be utilized as a freight yard switch engine, and there it may for long years do valuable and efficient work. There is likewise a valuable work for almost every human mind, however defective, if it be properly guarded and guided.

I sometimes think that most of us—between the age of twelve and twenty—suffered from some degree of dementia praecox. What perilously thin mental and moral ice we walked upon! How sorely we needed support and guidance, and how little we had! The young boy and the young girl do not for a long time know the meaning of their new sensations Sexual sins and perversions may arise. There is no one to whom they may go for aid and sympathy. The boy suffers remorse of conscience. He may become shy and seclusive, or he may resort to alcohol to lift him out of his slough of despond, and the beginning of the end is made. The unstable daughter in a moment of weakness may go astray—the mother, instead of making an effort to bring her back into the narrow path, closes the door against her, and, as Solomon says, "Her feet go down to death: her end is bitterer than wormwood."

It is difficult to say what shall be done towards prophylaxis and how it shall be done. Heredity, environment, individuality, and the social status must be considered. The family physician knows all these. He should watch the children in his practice—especially those of defective and neurotic parents—and advise parents and teacher. The time will come, I believe, when school children will be examined by a physician with a view of finding out their mental capabilities, and separate rooms will be provided for those children unable to stand the strain of mental over-exertion. The physically defective are not allowed on the football field—the mentally defective should not be allowed in intellectual contests where the mental strain is too great.

I may cite a few illustrative cases. A young man of twenty of good mental heredity, whose habits were good, made an excellent record in the high school, and entered college at the age of seventeen well prepared. At the close of the fall term he failed to pass on several subjects and he was even more unfortunate in the examinations at the close of the year. During the college term he wrote frequently to his father that his eye sight was troubling him; that he felt unwell, and was unable to concentrate his mind. His eyes were examined, but the oculist was unable to find any defect sufficient to account for the complaint. The boy remained out of school the next year and last fall he matriculated at another college, but remained there only a few weeks and suddenly returned home. The boy himself realized that his father's attempt to educate him was useless; he could not study. For more than a month he has been a patient in the State Hospital. There is, to my mind, no doubt that insanity has

been developing in this boy for the past two or three years, and that the complaints of eye trouble and other vague feelings of discomfort were really the first manifestations of the mental disorder. Had this boy's failure to make progress with his studies been reported by the academic authorities to the college physician, mental exhaustion would have been found to be the cause, and with rest and proper care commitment to an insane asylum might have been unnecessary. I call to mind another young patient now at home on probation, the development of whose moral tone is below normal. There is little intellectual loss, and while at the hospital he is a model patient going where he pleases on the hospital grounds, but he is unable to remain long at home because he forges checks and does other things which might land him in prison. He is the son of a widowed mother and all that he needs at home is to be subjected to some strong restraining influence. Another young fellow was recently admitted to the institution from a mountain county soon after desertion from the army. I have no doubt that the disturbing influences of beginning dementia praecox were responsible for his desertion. He should not, as a matter of fact, have been allowed to enlist. Another young man who has recently come to the institution had been employed as a private detective to ferret out blind tiger joints. He soon became suspicious; developed delusions of a persecutory nature; and there is no doubt that this particular work was instrumental in producing mental breakdown. Such cases as these could be cited by the score.

The terminal dementia of dementia praecox is responsible for the large immobile population in every State hospital. A small percentage of the cases actually recover. Paretics and epileptics die—the manic depressive cases clear up and return home from time to time, but most of the praecox cases remain. And the majority of these, because of the early age at which commitment to a hospital is necessary, and because of the sheltered lives they live, reach an advanced age in good physical health. And one of the greatest problems with which the hospital superintendent has to deal is the problem of properly caring for this great horde of men and women. Most of them require little medication; most of them are quiet and give little trouble and it is, therefore, easy to see how they may become neglected. The average Southern State hospital staff is small; money is scarce, and it is not easy to give each one of these dements individual attention. Several years ago, our lamented superintendent, Dr. P. L. Murphy, conceived the idea of colonizing the well behaved, physically robust, chronic dements. Three or four small buildings were erected on the hospital farm at a distance from the main building and seventy-five men were placed in these buildings and surrounded by conditions as nearly as possible like those which surround the best farmer. And dements who had been vegetating on the wards for years and years are now going out from these colony buildings every day and are finding agreeable and beneficial work on the farm. These men work in squads of ten or fifteen under the care of a competent attendant who gives each one of them individual attention. And their health is better and their lives are happier. The present superintendent of the Morganton hospital, Dr. John McCampbell, is extending the colony plan and within a short time, out of a total male population of a little more than five hundred, we shall have one hundred and seventy-five more or less demented men living in colonies and doing each day such work as the average farmer does. At present, almost 50 per cent. of our men are finding daily employment outside of the walls of the building. Most of them do some kind of agricultural work; a number of them help to care for the grounds; others work in the dairy; some in the garden; a few in the shoe shop; others in the carpenter shop; some of them about the green house, and two or three of them carry the mail to and from the village. Our institution is fortunate in having in its employ several attendants who have been with it since the doors were first opened, and they are invaluable. Their long experience has enabled them to learn how to manage insane men; and, after all, the problem is simply one of finding suitable caretakers—teachers—for these demented people—attendants who will take an individual and personal interest in these unfortuuates. And when a sufficient number of such attendants can be employed it will be found that there are few patients so demented after the storm has passed that some degree of re-education is not possible. For, after all, these mild chronic dements differ little from large bodied children with small minds.

I believe the time is coming when the dements will be separated in State hospitals from the acute cases. And, when that time comes, the department for the care of these patients will look like a great industrial school. Each one will be taught some useful employment and for the remainder of their lives they will actually be going to school. Few of them are absolutely mindless; most of them are to some degree teachable.

Much is heard today of the conservation of material resources and much is being done to develop and to utilize some of the forces of nature that have long been going to waste. My hope is that there may be more general recognition of the fact that insanity in adolescents is frequently preceded by peculiarities in childhood; that such abnormal children may not be treated in the mass at home and in school with the normal children, but that each one of them shall receive individual attention and shall be educated and trained in accordance with its mental capabilities and shall be prevented from attempting to do that which it is mentally unfitted to do. The solution of this problem will be found in the wisdom of the family physician. My final plea is that if the mental breakdown cannot be averted and the condition results in permanent mental loss, that a greater effort may be made to re-awaken the residuum of intellect and by re-educating and re-training these people to make their lives happier and the State's burden less.

A Study of Some Parasitic Diseases.*

By H. A. Newell, M. D., Louisburg, N. C.

From the discovery of the Old World hookworm—the haaken wormo of Goeze—in the last quarter of the eighteenth century we have had crusade after crusade against this pest in the various tropical regions. In Italy, the foundations of a rational understanding of the disease and its treatment were laid. In Porto Rico and in Java, with the assistance of modern scientific accessories this work was further developed. In the United States, the work commenced a little over a decade ago with Stiles under the inspiration of David Starr Jordan. While investigating the seal industry on Behring Sea, he noticed that each seal that was born on the sand suffered with a sort of sleepy affection which overcame him more and more until, from sheer lack of energy to get out of the way, he was crushed to death by the foot of a big seal. He found always present in these dead seals an ulcerated portion of the small intestine with evidences of a quite severe anemia. In these ulcerated intestines, he found some parasites which he thought deserving of further study. So Mr. Jordan brought some specimens to Washington and turned them over to Dr. Stiles. He cleared up the zoology of the parasite and amazed us all with the vicious influences he traced to the parasite. Joseph Loidy, in 1886, published a description of uncinaria but the article was lost sight of through bad cataloguing (J. A. M. A., June 5, 1909). Dr. Harris, in the very beginning of Stiles' investigation, has gone on record with the statement that uncinariasis is the most common and probably the most pernicious of all the infectious diseases of the South.

Since then we have grown to know so much about the hookworm that what I shall say may contain nothing new, but I trust that I shall call attention to the essential details in which I feel, as must all general practitioners, the need of stimulation.

It should be emphasized that uncinaria infect, not simply the feet but the entire body. The embryos push up through the clothing and enter the body through the hair follicles of the skin when persons are lying down in infected places. Dr. Ferrell tells of an interesting case he had recently, of a man who lay on the ground for half an hour in his shirt sleeves mending his automobile. Ground-itch developed over his entire back and the microscope showed it to be full of the worms.

It should also be pointed out how the germs may be taken into the body with food. Dogs and cats get their noses infected and are liable, with their mischievous intrusion, to bring the germs into the vessels from which we eat. Flies are constantly bringing the eggs, and possibly, the embryos from infected materials or soil nearby. Raw vegetables and fruits may readily carry the germs. Fowls form quite a factor in carrying infection from soil to vegetables and fruits. With our filthy lack of attention to the care of the milch-cows and their surroundings is due the possibility that eggs and worms may, at any time, be held mechanically on the body of the cow from whence they fall into the milk. Small top milk-pails should be so constructed as to offer the least admittance to foreign matter which might fall mechanically into the milk. Cleanliness should be emphasized for both the cow and her milker. Water, also, should be mentioned as a carrier.

Once the germs have gotten to the seat of infection, the most remarkable thing this disease is the total disparity between the amount of infection, or number of worms present, and the violence of the effects caused thereby. Very few words may be found in one violent case while a great many may be found in a mild one. It is conceded now that the parasite sucks the blood of the patient, but this cannot account for all of the symptoms. And this would also indicate a definite proportion between the number of worms present and the violence of the disease. The worm produces a local ulceration which harbors further inspection. But the history of a number

*Read before the North Carolina Medical Society June, 1910.

of cases should show also in this particular a relation between the number of the worms and the violence of the disease. Poikilocytosis and polychromatophilia are always present in the infection and are supposed to be connected with a toxic product from the worms. The blood changes seem certainly to indicate a hemolytic action in the disease. If it is true that toxic substances are produced by the worms we should expect individual variations. One individual might resist a great amount of the toxic principal while another may succumb to moderate amounts. The formation of toxic products would explain the variation in the amount of infection and the violence of its effects. The worms do suck blood and they do cause ulceration but these two effects are not sufficient to explain all the phenomena connected with the disease. While the nature of the hemolytic action is not yet understood? Some work is being done on the subject at present and we shall have to look in this direction for a full understanding. (Journal Experimental Medicine, N. Y., March, 1909), The changes in the liver, kidneys and heart are secondary and must be studied as developing out of the conditions already mentioned. Thymol, introduced first by Bozzoli in Italy, is the drug which has almost taken its place as a specific. But certain dangers follow its use which must be ever present to the mind of the conservative physician. It is a nephritic irritant and a violent escharotic. Its action is strictly local. Every bit of thymol which is dissolved and absorbed into the system not only has no effect on the worms but carries a deadly menace to the patient. This absorbed thymol goes to the kidneys. Nephritis with hematuria follows. Its absorption is dependent upon several conditions. Oils, alcohol and other substances in which it is soluble, force its absorption. The ulcerated surfaces from which the body juices ooze effect its absorption through their great solvent power on the thymol.

Anything that promotes endosmosis, or the flow of the watery constituents of the blood into the intestines will tend to prevent toxic absorption.

On several occasions when absorption was taking place and violent symptoms had begun to develop I succeeded in abating the symptoms by the use of the juice of oranges and lemons. The juice was used freely. Works on chemistry agree that thymol is inclined to be unstable in alkaline media. It is quite possible that absorption takes place through the breaking down of thymol to form soluble compounds. In this case the inference is clear that the sour juice produces an acid medium in which the thymol is held in the stable and insoluble form. I am at present having this investigated from a chemical standpoint and hope to clear that point up. I am quite sure that the lemon juice is of value in cases of absorption and it may well be that its action is physiological rather than chemical. I offer these as suggestions rather than established explanation.

In the administration of thymol I have found it advisable to admix it, in a finely divided condition, with milksugar, as has been advised.

Thymol is always dangerous in kidney lesions, nephritis, etc., where extensive ulcerated surfaces are exposed in the intestine or in those extremely debilitated conditions in which the patient is not able to resist considerable toxicity. Extensive ulceration is rarely present in hookworm infection but is associated with other intestinal infections, especially that of Receatrengyloides intestinalis in which I shall consider this further.

Recently I have found very useful a treatment, an account of which is given by Wijn in the March number of Janus. An abstract of the article appears in the N. Y. Medical Journal of May 14, 1910. This treatment consists of oil of eucalyptus 2.5 grammes, chloroform 3.5 grammes and castor oil 40 grammes. A large dose of castor oil is given the evening previous, the above being one dose is given at 6 and repeated at 8 o'clock in the morning. The patient advised to refrain from rice and all starchy foods. The dose may be repeated in the same week if it is desirable to do so.

Ashford and King used a treatment similar to this in Porto Rico under the name of Phylips eucalyptus chloroform treatment and found it so disagreeable to the patient that they discontinued its use. (A. M. A. Journal June 4, 1910).

Wijn has used the treatment given above in a large number of cases in Java, has had no disagreeable symptoms and has found it the quickest mode of treatment which has yet been tried. My own experience with it has been too limited to say just how long it takes in my cases for all the eggs and worms to disappear from the feces. Wijn states that two doses are practically sufficient to expel all the eggs and worms. My patients prefer it to the thymol treatment and I am hoping to find it more efficient. We must not forget that eucalyptus and chloroform also have a tendency to produce irritation of the kidney. It is not necessary to restrict the diet in this as much as in the thymol treatment, therefore the nutrition is not so much interfered with—a point of the greatest importance in the greatly debilitated conditions we meet so often in

these cases.

Aspidium, or Male Fern, has been found very useful in Italy, though its use has been largely discontinued in this country. I wish to emphasize its value in those complications where hookworm and tapeworm are found together. I have known of several cases of this.

Ehrlich's organic arsenic preparations which are so promising in trypanosomatous infections are also quite efficient for hookworm and strongyloides. The least toxic of these is Ars-Acetin. Dr. Chas. Simon tells us that he has used it with no ill effects, not however in this particular infection. Its use is attended with so much danger that I have used it on only one occasion. I got an efficient action by the injection of $4\frac{1}{2}$ grains subcutaneously on two successive days. (Dissolves in one to ten parts cold water). A great deal of work is being done at present at the Johns Hopkins University on the preparations of this character and it may be that we shall soon get one that is entirely safe and efficient. This is certainly the pleasantest treatment yet devised. I am, however, afraid to use it at present. The use of Beta Naphthol and Turpentine seems unadvisable on account of their great toxicity. Urorropin seems promising as a safe remedy though it has not been tried. I should think a laxative each morning a good combination with it. It must be remembered that to be efficient, any drug must be excreted in the small intestine. The end-point of the treatment may be determined by repeatedly washing and centrifugalizing the specimen. In this way a very few eggs may be detected in the presence of a large amount of diluent fecal matter. The violence of the therapeutic measures makes this important.

I have this spring seen two cases of another parasitic infection—Strongyloides Intestinalis. I think it must be more common than we suspect since our climate and soil are so favorable to its development. The rhabditiform embryos are found in the feces. These pass, at room temperature, in twenty-four hours into the filariform. The embryos are in all parts of the intestines and have been found even in the blood. The adults are buried in the tissues of the intestine. In the stools, the embryos are recognized by their eel-like strongyles form. When the age of the stool is not known, strongyloides is differentiated from the hookworm by the shorter buccal cavity. Plant hairs from vegetable foods resemble dead strongyloides greatly but may be recognized by their having a straight central canal without definite structure. The strongyloides are very hardy. They have been supposed to infect man only, but I have cause to think they infect horses. Their mode of entrance into the body is probably much similar to that of the hookworm. I think their chance of infection much greater on account of the smaller size and greater number of the worms.

This infection is characterized by extensive ulceration of the inside of the intestines and the Gastro-intestinal symptoms arising therefrom. Neither their blood-sucking nor their hemolytic action have been determined, but there is a pernicious anemia associated with the disease which must be accounted for. Liver abscess is, next to anemia, the most common manifestation of the disease. Leisons are found in the heart and kidneys as common secondary manifestations. Patients alternate between diarrhea and constipation. Diarrhea is most pronounced and frequently attended with tenesmus. The stomach becomes involved and its function disturbed. There is ptosis of the stomach and intestines and a general relaxation of all the muscles supporting the viscera.

The patient goes from physician to physician and is treated for indigestion and dysenterv, finally to come under the observation of the microscopist where the correct diagnosis is made and in the only way it can be made. The patient is by this time in a state of chronic auto-intoxication from the fermentation products of the intestines and is extremely debilitated.

In the treatment, thymol is the drug that has nearly always been used, but its use has never been attended with the complete disappearance of the embryos. Thayer says he has had his patients to overcome the ill-effects of the strongyloides to a great extent but he has never been able to rid his patients entirely of them. The strongyloides are buried deep down in the tissues and thymol cannot get them except it be absorbed into the body-juices. When it is absorbed into the body-juices, it endangers the life of the patient. The thymol treatment can only succeed in getting out some of the embryos and those few adults which may happen to be exposed on the surface of the tissues. It can never remove any large proportion of the adults. Hematuria follows its use and the alimentary functions are often so disturbed as to constitute a real danger in itself, certainly of permanent injury to the patient and possibly his death. It has been suggested that the great absorption in the strongyloides infection is due to the extensive ulceration found in the intestine. The juices oozing out from these ulcerated surfaces render thymol much more soluble and favors its absorption into the system.

I have for the past six months had one

of these patients under my care whom I referred to Drs. Julius Friedenwald and Frederick Leitz, of Baltimore, where he was also seen by Drs. Abel, Thayer and Chas. Simon. More recently, I have referred another patient to these physicians as well.

The germ was first isolated by W. S. Thayer in Baltimore about a decade ago. The study of the disease, and especially of these two patients, has shown the inefficiency of thymol and has pointed to the experimental study of several modes of treatment.

Ars Acetin was tried and killed some, even of the adults, as was shown by the microscopic study of the feces. Dr. Abel, who has had extensive experimental experience with these arsenic and antimony preparations, thinks them still too dangerous for use in human beings. Thayer has suggested male fern, and possibly urotropin. Petri, at Berlin, says he has tried male fern and it has had no effect on the worms. The eucalyptus-chloroform treatment which I have outlined under the hookworm treatment may be, I think, very successful. One of my patients himself tried the "mixed treatment" (Syphilis—HgCl–K Iodides of K, As and Te) Tablet of Sharpe and Dohme, and a great many dead embryos were found in the stools after its use. Stomatitis developed and this mercury treatment was dropped. This seems to be a very effective treatment and if wisely administered may prove satisfactory. Since the strongyloides are found deep in the tissues of the intestine and in the blood, we must have a drug which will produce a systemic effect, something like quinine in malaria and mercury in syphilis.

Quinine hydrochloride, phenol-phthalein and phenol-tetra-chlor-phthalein prove ineffective because they are not excreted in the small intestine, even granting that they would kill the germ when administered through the body juices at a safe concentration.

The strongyloides can produce an autoinfection—and a bath of the patient may be followed by the ulceration typical of the invasion. I should always suggest an antiseptic as an addition to the bath water for the lower parts of the body.

Freti says he has cured three cases by the use of glycerine. He gives 25 grams pure glycerine with the same amount in capsules at the same time and 30 grams by rectum two hours later. In two days he repeats the same treatment. (Therapeutische monatshefte, for February, 1910), (abstracted in J. A. M. A., March, 1910). (In no rsk Magazin fur Llegevidenskaben, October, 1909). Vetlesen says he has cured pernicious anemia with glycerine, tablespoonful t. i. d. He got his idea from a suggestion of Tallquist and Faust that glycerine might combine with the lipoid substance assumed to be responsible for the disintegration of the red blood corpuscles, combining to form a harmless product. The special lipoid substance found in anemia from intestinal parasites proved to be oleic acid and this combined with glycerine to form tri-olein. (J. A. M. A., Dec. 11, 1909).

The use of thymol is sometimes attended with striking psychic phenomena. The patient's imaginative and reasoning faculties are so stimulated that he clears up obscure places in thus thinking that he could not do normally.

In every case of strongyloides it is wise to examine carefully for amœba coli. The difficulty of finding them with the microscope are such that a local examination may be necessary if the warm injection does not show them.

The proper recognition and treatment of diseases of this character have assumed such importance now that no conscientious physician can afford not to avail himself of the advantage of a microscope.

In closing, I wish to mention one case which I had that presented the clinical picture of a tubal infection. Fecal examination, however, showed the presence of hookworms and the patient responded readily to the treatment for this disease. All symptoms of the tubal infection disappeared with the first treatment for hookworm.

Pellagra.*

By R. W. S. Pegram, M. D., Dellaplain, N. C.

Mr. President, Members of the Society:

The subject of this little paper is one that should receive the careful consideration of the medical profession and health officials of our country.

And in appearing before you to read a paper on so ancient a subject as pellagra, knowing the vast amount of literature upon this subject and the various theories advanced by eminent authors and men of renown for their astuteness and scholarly ability I would feel a delicacy in advancing a new theory but I feel that a thorough knowledge of the cause which produces this strange malady has not been yet discovered in our country, and for my position I will invite you to reason this subject with me for a short time.

Pellagra was first discovered in Spain, and was a common occurrence in Italy. This pellagra was due to eating bread contaminated with ergotte or spored grain, or

*Read before the North Carolina Medical Society June, 1910.

this was a conceded theory, and was of a chronic poisoning, which produced a gangrenous condition, death of tissue thrambosis, &c. This was in the ages past, before modern mills came into vogue, and the smut or spored grain was ground and made into the bread which produced pellagra. Now, in those countries corn is seldom used for bread and this disease was discovered prior to the discovery of the Indian corn of today, then the Indian corn ergotte or spored grain is never used in bread, hence that part of the advanced theory is removed and excluded from our consideration of that part of the subject and I am of the opinion we have no pellagra from the spored grain, but we have a malady, not a disease, but a poisoning simulating pellagra, which is produced by carbonii bi-sulphidum whose physiological actions are almost identical with the symptoms of pellagra and this drug is extensively used by large grain elevators and grain dealers generally to prevent wevil and bugs and to destroy the eggs of those insects which prove so detrimental to the keeping of the grain. This drug is absorbed by oils, fats, chloroform, &c., but not decomposed by water, &c. Now, this drug is placed in an open vessel and set in the granary or storage house, left open, the granary closed tight, and remains there for some days and when the granary is opened the liquid has been absorbed by the kernel or heart of the wheat or corn. being an oily constituent. and when the corn is ground thus treated all the heart is seived through and is made into bread. The wheat is ground in the roller mill and when properly bolted no heart or kernel is in the first grade of flour but the second and third grades contain the heart of the grain. Hence we see the simulated pellagra in the poor class of people who eat the low grade of flour and the shipped corn thus treated with the carbonii dysulphidum. So thoroughly am I convinced that this is the only pellagra we have that I will relate a case of my experience.

On the 9th day of Novembet, 1909, Mr. P. had taken a ride into the Brushy Mts., some 15 or 16 miles, stopped at Mr. P.'s home just at dinner time and ate dinner consisting of bacon, cabbage and bread from shipped corn. In about one hour he complained of headache, vertigo, hot and cold flashes; then a chilly sensation, with cold hands and feet, cold perspiration which increased with a roaring or buzzing sensation in his head, spots before his eyes and a sleepy sensation at times and at about 4 in the afternoon he became so ill on his way home he called at Mr. I. T. Mathis, asked for a bed saying he was dying. Dark spots had appeared on his hands, arms, feet and legs. He was bathed in a cold sweat and his head felt cold and he felt the end was not far distant. I ordered his feet and legs bathed in hot water and wrapped him in a blanket and give him ½ oz. of brandy, which was repeated every half hour, keeping up the hot blankets. The treatment commenced at 5.30 p. m. and lasted until 2 the next morning when he fell asleep and slept about 2 hours when he awoke. The brandy and hot wraps was repeated, in abount half hour he fell asleep again and slept until near 6 o'clock. He ate a light breakfast, consisting of eggs, coffee and biscuit. He complained of a pricking sensation in his hands, feet and legs, though his head was clear, his feet, hands, legs and arms remained cold with blue spots with a sinking sensation at times which did not disappear for a month's time.

My diagnosis was pellagra. But referring to my text books and reading all the literature on the subject I found my case was accute in character. Then I remembered the bread was made from the shipped corn and recalling to my mind that Carbonnii Dysulphidum was extensively used by large elevators and storage companies I looked up carefully the physilogical action of the drug and found them almost identical with those of my patient, then remembering that this drug was decomposed bp oils and fats I was satisfied this was a case of poisoning by Carbonni Dysalphidan which assumed all the symptoms of pellagra except its accuteness and I am now satisfied in my mind that 90 percent of our pellagra is that of poisoning by Carbonii Disulphidum.

The Value of Serums and Vaccines in the Treatment of Disease.—Raw, in The British Medical Journal, deals with this question with reference to acquired immunity and then takes up in turn the antistreptococcic sera as used in puerperal septicemia, erysipelas, malignant endocarditis, acute tonsillitis, diphtheria, tetanus, tuberculosis, and then speaks of the use of vaccines from human sources for tuberculosis, pneumonia, staphylococcic infections, Coley's fluid and typhoid fever. The writer believes that the vaccine treatment of the latter disease, in which Wright was a pioneer, is more a prophylactic than a curative measure. The best results are obtained in staphylococcic infections. The writer believes that vaccines do good in pneumonia, but the evidence is still small. In regard to tuberculin from human sources

the author has used the T. R. in 110 cases, including tuberculous glands in the neck, tuberculous peritonitis, tuberculous joints and sinuses, lupus, tuberculous meningitis, and genitourinary tuberculosis. In the localized forms of the disease, most of which he believes to be of bovine origin and conveyed to children in infected milk, he is convinced that the T. R. has an excellent effect except in those patients in whom there is some pus encysted in the body, whether in the interior of the joint or in a bone under pressure, or as an abscess in a lymphatic gland. In these cases there is a danger of tuberculin causing dissemination of the bacilli, with a resultant blood stream infection. It is a good rule never to give tuberculin if any pus is localized in the body. In many cases a course of tuberculin has had the effect of greatly reducing enlarged tuberculous glands of the neck, by dispersing the periadenoid tissue and causing a general freeing and loosening of the glands themselves, while in some the enlarged glands have entirely disappeared. If, however, there is any tendency to suppuration the glands must be opened, and in all cases the pus should be liberated. The author is convinced that the extensive dissection of glands in the neck is wrong in principle, and sometimes leads to a general tuberculosis which is fatal. In tuberculous peritonitis tuberculin has a splendid effect, and, combined with operation and drainage, many patients have been completely cured. In genitourinary tuberculosis ten or twelve injections of tuberculin have often had an excellent healing effect when everything else has failed.

Chemical food is a mixture of Phosphoric Acid and Phosphates, the value of which physicians seem to have lost sight of to some extent, in the past few years. The Robinson-Pettet Co., to whose advertisement (on page xvi) we refer our readers, have placed upon the market a much improved form of this compound, "Robinson's Phosphoric Elixir." Its superiority consists in its uniform composition and high degree of palatability.

Thermosemeiology of Scarlatina.—Barannikow, in the Arch. de med. des. enf., mentions some special characteristics of the rise of temperature in scarlet fever, which will aid in giving a prognosis as to the duration and final result of the disease. The writer's work is based on the records of the Children's Clinic at the Hospital of Kharkoff. There were 209 cases submitted to the author's researches. The curve derived from these cases serves as an indication of the gravity of the evolution during the epidemic chosen for examination. He has worked out the average curve for a period of thirty days. The writer shows that scarlet fever has not ceased to be present in Kharkoff for the past six years, especially in September and October. Most of the patients were between two and seven years of age; the mortality was greatest at about the age of two years. The clinical picture of an infectious disease depends on the simultaneous action of the causal agent and the reaction of the organism against it. Predisposition, heredity and acquired peculiarities, and the kind of bacterial flora play an important role. The typical curve of scarlet fever attains its greatest rise in the first three days of the disease, after which it shows a tendency to lysis. It is possible to predict within twelve hours the time when the fever will go down from observations on the fourth or fifth day. When the curve has been affected by outside influences it is possible to predict before examining the patient the arrival of other complications. Sudden falls of temperature between the third and thirteenth days are constant in every epidemic of this fever. The fall is dependent on certain laws; the rise of temperature in the first days of scarlatina makes it possible to predict precisely when the general character of the curves of the local epidemic are known. Diphtheritic angina appearing with scarlatina causes a rise of temperature, which descends when serum is given in sufficient amount. The principal source of this infection is from chronic cases of diphtheria of the nasopharynx. These patients have immunizing bodies in their blood similar to those of horse serum. They appear to be healthy but disseminate disease constantly. Ulceration of the eyes, nose, and angles of the lips is seen, commencing at the time of desquamation, and being especially tenacious in scrofulous children and those having decayed teeth. Measles has only a slight effect on scarlatina as a complication, Whooping cough has rather a favorable effect on scarlatina.

Eclampsia.

After all the ordinary measures had failed to bring on diuresis in three dangerous cases of eclampsia, bilateral renal decapsulation was employed with excellent results. The incisions were made parallel with the twelfth rib. After decapsulation the fatty perirenal tissues were sutured and drainage instituted. No untoward results followed. The author is of the opinion that many cases now considered hopeless can be saved by this procedure.—Lichtenstein, Zentralblatt fur Gynækologie.

Pellagra.—Dr. E. M. Mason, Alabama State Bacteriologist and Pathologist, in an article on the above subject, published in the July, 1910, issue of the Gulf States Journal of Medicine and Surgery, makes the following statements:

Nothing of special interest is found in the peripheral nerves. The central nervous system may show further degenerative changes resembling those found in general paresis.

There is usually much emaciation, with pigmentation and fatty degeneration of the viscera. Liver and spleen are small and the intestines show more or less atrophy and pigmentation. Babes reports many cases of thickening and amyloid degeneration of the musculature of the large bowel, often associated with diphtheroid inflammation. The kidneys may show cirrhotic changes and the bones are unusually fragile. The skin is hypertrophied and pigmented or atrophied and parchment-like, according to the stage of the disease.

In an article published in the July issue of the Gulf States Journal of Medicine and Surgery entitled, "Geographical Distribution of Hookworm Disease in Alabama," G. J. Winthrop and H. P. Cole give the following statistics:

Statistics so far obtainable as to the incidence of hookworm disease have dealt chiefly with those closely congregated in mills, hospitals, prisons, etc., and usually of the lower classes of society. Stiles notes 50, 60 or even 70 per cent. of infected cases in some sand land cotton mills. Chamberlain (2), found 64 of 147 Southern bred recruits in the United States army infected. Dr. Brumby (3), at the Hookworm Conference at Atlanta (2) stated that an examination of the student body of the Texas State University showed 10 per cent. to be infected, and that 31 per cent. of the male students of one of the State normal institutions were infected.

The question naturally arises, Does this same extent of infection exist among our better classes in Alabama, and what percentage of apparently healthy individuals harbor the parasites? To attempt an answer to this question we undertook the examination of a number of individuals from the better classes of the towns and rural districts of Alabama, pursuing a course of instruction in one of the larger institutions of learning in the State. The persons examined were young adult males, of average age of 22.3 years, raised in good surroundings, well educated and representing the best classes of society. The cases noted were of a mild type and showed but few symptoms of infection.

Radium Therapy.—In the July, 1910, issue of the Gulf States Journal of Medicine and Surgery, Dr. F. G. Hadgson, of Atlanta, Georgia, in a paper on the above subject says: With regard to epithelioma of the tongue and epithelioma of the lip—they are cured by radium. You say, of what degree? I acknowledge that the cases are ulcerating and that so far as we know can yield to no other treatment except operation. If, therefore, an epithelioma of the tongue can be cured by radium, and cured to the satisfaction of those who are responsible for the case, it is a case of epithelioma cured without operation. Many of these I have seen. The same remark applies to commencing epithelioma on the inside of the mouth. With regard to epithelioma of the face I can speak of these cases at the Paris (radium) Institute. An epithelioma of the face which had perforated into the nasal passage, that was cured after a good many sittings. An epithelioma of the ala nasi, which was destroyed under the influence of radium, after sittings which amounted in all to eight hours. An epithelioma the size of a 2-shilling piece cured and the surface healed over. You may ask, "But are these results permananent?" They apparently are. It is true no great amount of time has elapsed, but some cases were perfectly sound after more than two years. We wait with interest the extension of this treatment to malignant diseases of the uterus and rectum.

Uncinariasis.—In the July, 1910, issue of the Gulf States Journal of Medicine and Surgery, Dr. Wm. Edson Ross, of Jacksonville, Fla., gives the following report of a case of uncinariasis:

The case was age eleven. Inspection showed boy of normal height, extreme anemia, general anasarca, eyes almost closed, secreting constantly large quantity of sero-pus, marked dyspnea and incessant hacking cough with large quantity of frothy and watery sputum. Temperature 104 degrees, pulse 160, respiration 40. No history was obtainable except that patient had just previously had treatment as given by the State Board of Health for uncinariasis.

Physical examination shows lungs in state of general œdema; heart dilated and probably hypertrophied to nearly twice its normal size and apparently leaking freely at every valve; spleen extending between four and five inches below costal margin and very hard; liver extending about one and one half inches below costal margin; mucous membrane almost as white as skin and practically parchment white; examination otherwise negative except for extreme

œdema. Blood shows great many æstivo-autumnal malarial parasites, many fields having four and six parasites in all stages of development from minute body to crescents. Differential leucocyte count is practically normal, polynuclears 71 per cent., mononuclears 27 per cent., transitionals 1 per cent., mast 0.3 per cent., eosinophiles 0.7 per cent., eight karooginetic leucocytes and twenty normoblasts were found in counting 200 leucocyles. Hæmoglobin 8 per cent.; urine shows large amount of albumen and many casts; feces shows great many hookworm eggs. Patient under diuresis, diaphoresis and heavy stimulation responded to treatment for the acute nephritis in about ten days with great improvement in œdema, except that lung condition never entirely disappeared.

Thymol was given at the end of ten days after albumen disappeared, with an immediate return of albumen, anasarca and dyspnea, and one hookworm. Elimination improved condition and beta-naphthol was given in six grain doses three times a day with absolutely no results till time of death. Malaria was cured as far as blood findings on many examinations could detect, by dram doses of quinine daily by rectum.

Thymol was never repeated owing to apparent toxic effects and beta-naphthol had no appreciable results, as vast numbers of eggs were found in the feces at all the numerous examinations. Hypodermics of iron and arsenic were given for the anemia with a result of raising the hæmoglobin to 15 per cent.

Patient died March 8th; symptoms at last were simply a continuation of former cough, slight increase in pulmonary œdema and more dilation of heart.

Uncinariasis from the Standpoint of the Neurologist.—Dr. James H. Randolph, of Jacksonville, Fla., in an article on the above subject, published in the July, 1910, issue of the Gulf States Journal of Medicine and Surgery, makes the following statements:

The Japanese workers have seemed to be most active in noting neurological complications or sequelae in uncinariasis but their reports deal chiefly with effects on vision and lesions in the optic tract; and it has remained for the Italian Signorelli to first call attention to certain well defined nervous phenomona occurring in patients affected with hookworm disease and demonstrate their interdependence. He reports three cases, the first of which showed the meningeal syndrome; with Kernig's sign, vomiting; pain and stiffened neck with general hyperesthesia and high temperature; careful clinical examination disclosed only ova of uncinariasis and prompt relief followed medication for this parasite. His second case differed in presenting features more like neuralgia, with pain especially in the sciatic region. His third case showed marked vasomotor disturbances with flushed face, sensations of heat over the body, and headache and dizziness; these seizures came on in the form of attacks, one of which was followed by loss of consciousness, convulsive movements, cyanosis, stertorous breathing and dilated pupils. Examination of blood showed little change from normal except for eosinophilia and feces showed numerous ova of hookworm. His conclusions are that in hookworm disease we may have various affections belonging to the nervous system—both central and peripheral—and that these symptoms are the evidence of a specific parasitic intoxication which he belives affects primarily the vasomotor centres; and he suggests that in the pathogenesis of these conditions there need be taken into consideration only the individual predisposition and the amount of toxin involved irrespective of the disturbed nutritional equilibrium of the organs as a whole.

The Act of vomiting as Seen by X-Ray.

Levy-Dorn and S. Muehlfelder state that the act of vomiting as described in the text-books on physiology does not correspond with the actual facts as viewed by the aid of the X-ray. Thus it has been said that "the musculature of the stomach plays no decidedly active part in the act," and again that, "coincidently with a spasmodic contraction of the expiratory belly muscles, and with closure of the glottis and a low position of the diaphragm, the pylorus is tightened and the cardia completely relaxed, but the stomach remains flaccid." Each of the writers in turn swallowed a concentrated mixture of bismuth carbonate, sugar and water, and was then watched by the other through the fluorescent screen during the act of vomiting. The lower pole of the stomach was seen to lower itself suddenly, and then to rise jerkily to the extent of three finger breadths. Sometimes the stomach made several short jumps up and down before rising more markedly. Viewed sideways, the stomach was found not only to rise, but also to draw back from the belly wall. The gastric shadow became at the same time shallower and narrower. The diaphragm assumed an inspiratory position at the commencement to the act of vomiting, but during the remainder of the act was in an expiratory position. It appears clear that during vomiting the stomach contracts forcibly upon its contents.—Berl. Klin. Woch.

Charlotte Medical Journal

Published Monthly.

EDWARD C. REGISTER, M. D., EDITOR.

CHARLOTTE, N. C.

FIRST ANNUAL REPORT OF THE CHARLOTTE SANATORIUM.

The report of The Charlotte Sanatorium for the year 1909 makes a very interesting showing. The highly successful character of the first year's work indicates that the institution found a real need for such a hospital. That it has filled this need will be shown by the future reports of the year's work.

The records show that 839 patients were admitted during the year, a monthly average of about 70. The ages varied from infancy to 90 years, but more than half were from 20 to 50 years old. The total number of deaths was 21, making the death rate 2½%, which compares favorably with any institution in the country. The following States were represented in the admissions: North Carolina, South Carolina, Virginia, Georgia, New York, Texas, Pennsylvania, Mississippi, Florida, Alabama, Maryland, Michigan, Oklahoma, Rhode Island, and the Dominion of Canada.

There were forty different physicians who attended patients in the Sanatorium during the year.

Among the interesting medical cases there were 3 cases of pellagra, 7 cases of uncinariasis, 13 of gastric ulcer and 9 of nephritis.

The total number of operations was 486 or about 40 a month.

In the Hydrotherapeutic Department 2713 baths and treatments were given.

Nine nurses who had taken some training elsewhere were graduated at the end of the year.

Taken altogether the report is a very creditable one for the first year, and speaks well for the future welfare of the Sanatorium. The report makes a very handsome booklet, and a copy will be gladly sent any physician who would like to see the details of the year's work.

HOSPITALS.

Because of the very great and rapidly increasing cost of caring for the sick in their homes, due to increased expenditures for nursing and necessary medical attendance, as well as the increasing difficulty in securing sanitary conditions, proper diet, and care and facilities for an operation and for postoperative care in individual homes, the care of the sick is becoming increasingly a hospital problem. This tendency is further augmented by the fact that people tend more and more to dwell in cities and villages, in quarters so crowded that proper care of sick persons is quite impossible. It is also found increasingly necessary to move many patients from their homes to hospitals for the conservation of the health of those remaining at home. It is therefore becoming more and more apparent to those who are interested in the problems of public health that hospital facilities for the care of the sick must be greatly increased.

THE PROPER TREATMENT OF ANTERIOR POLIOMYELITIS.

The terrible ravages of anterior poliomyelitis during the past few years in several sections of the country among young children, and even mere infants in arms, has aroused widespread interest in this to be dreaded scourge which, like lightning out of a clear sky in many cases, strikes its victim down without warning, killing in some cases, maiming and crippling in the others and putting a blight upon the future life of the child almost at the threshold of its life. Partial or total, temporary or permanent paralysis may result from its visitation. The happy romping child of today, glorious to gaze upon in its health and strength, may in less than twelve hours later from the onset of the disease be stretched upon the bed a helpless cripple paralyzed—totally or partially—to remain so permanently or to make a partial recovery, for mark it well, so you can make a guarded prognosis in every case, rarely does a total recovery take place. Such a menace has this disease become to our younger generation of tender years that the master mind of Flexner and his associates at the Rockefeller Institute of Research are now occupied with the problem of finding out the cause of this violent health and happiness destroyer and seeking an antidote against the misery it causes. Several articles have been published recently detailing the progress of their work to date and we have reason to hope for their ultimate success. Other noted research workers are at work elsewhere on the same problem. Certainly with all of them are the best wishes of the profession and the prayers of the parents. Meantime what can and should be done in these cases now when the physician is called upon to treat them? Of course the moment the positive diagnosis is made a specialist in orthopedic surgery should be put in charge of the case where such a plan of action is feasible. However, in most cases this ideal plan of treatment is not feasible for one reason or another, one of the main reasons being that orthopedic surgeons are not quite as numerous as specialists of the other

branches of medicine. In fact, in many communities the nearest one is several hundred miles away. Under such conditions the burden falls upon the family physician alone and he must do his best for the little patient. If he does an intelligent best he can do a great deal which will be of immediate and future benefit to his patient. If his best lacks intelligent effort and direction, the child might almost be as well off if no physician had been in attendance. Unfortunately at present our knowledge is limited so far as cure is concerned, so our treatment in the acute stage is symptomatic. The physician must bear in mind that he is confronted with a very acute disease, usually short but very serious in its course, and which leaves such results in its brief stay that one could call it a chronic disease or divide the disease into acute and chronic stages. The latter being the stage of long drawn out, gradual, partial recovery from the paralysis. Therefore, your task is not ended with the cessation of the acute stage of the disease but rather just begun. You must explain this to the parents of your patient, telling them very plainly the dire results of neglecting treatment in the chronic stage of its course. In the acute stage counter-irritation over the entire length of the spine and prompt watery carthasis is the medication most recommended, with such additional proper measures for any other particular symptoms which may present themselves. The affected parts are carefully wrapped in cotton batting and extra covering put over them to keep up body temperature. Movements of the affected parts are avoided for the present time. If on account of the existing paralysis they assume faulty positions they are immediately propped up into over-corrected positions of the opposite kind. This is the first step towards preventing contractures and deformities. The sum total of the parts to be affected can usually be judged because when twenty-four hours have elapsed without any further extension of the paralysis the extent of the lesions has been reached. With the receding of the acute symptoms and the hyperesthesia gentle massage and manipulation of the parts are begun. Faradic electricity can also be used with advantage now for a few months; later on the galvanic current only should be used. The "reaction of degeneration" will tell in what muscles recovery can be looked for. The parts which are paralyzed are put up in positions of over-correction in the opposite direction from the action of the unparalyzed muscles to prevent contractures and deformities which would come otherwise were the normal muscles not thus interfered with. This over-correction is maintained by means of removable plaster of paris bandages or braces, preferably the latter because they are cleaner, more easy to handle and can be removed better for the twice or even thrice a day massage and manipulation. The massage from the gentle stage is gradually increased to ordinary massage. Tonic treatment is also begun to improve the general condition. Strychnine is pushed to the limit. The manipulation of the limb consists in putting it several times a day through its normal motions. The treatment for the chronic stage must be kept up for at least two years to get the best results. During all this time contractures and deformities must be prevented. At the end of this time, but not before, surgical measures, such as tendon transplantations, etc., may be considered to overcome any still existing paralysis or deformity. Surgical interference works wonders in many of these cases at this time, especially where the previous treatment has been good. Deformities are corrected and the disabilities of paralysis removed by arranging other muscles to do the work of the paralyzed ones. In fact, at this time in every case a good orthopedic surgeon should be consulted It would mean a good many less cripples from the disease in adult life.

THE CRIME OF GONORRHEAL OPHTHALMIA.

Recent and very reliable statistics regarding the causes of blindness give gonorrheal ophthalmia a very prominent place as a cause. This is not very creditable to the profession, especially when the report goes on to state that thirty persons out of every hundred blind people lost their sight at birth practically from this cause. This is certainly a most deplorable state of affairs, and as the cause is a preventable one the deplorable state of affairs is also a criminal one for those whose duty it is to prevent it. So easy is it to prevent that it seems that there would be no need for laws to make the necessary precautions for its prevention mandatory upon every physician and midwife. Yet, surprising as it may seem, it has been necessary to organize special societies for just this purpose, and as a result many boards of health at various points now have a question to be answered on the birth certificate as to whether any precautions against gonorrheal ophthelmia were taken at birth and if so what they were. A few have gone still further and prescribe a penalty where the answer is in the negative. They all should go further and make it a law that if no precautions were taken the physician or midwife would be merely fined if no ill after effects of the neglect came to pass, but would be liable to both fine and

imprisonment with revocation of the license to practice if ill effects did follow their glaring inattention to their duty. And alas! though, even then the punishment will not put back the power of sight into the infant's eyes or allay any the acute sufferings of the parents in their grief over their blind baby. So many papers have been written on this subject giving symptoms and treatment that nothing need be said here regarding them, and you will never be called upon to recognize the symptoms or give the treatment in any of your confinement cases if you are wise and will only just "chalk it down as gospel truth" that "an ounce of prevention is worth a pound of cure" and use the simple but positively effective measure that is insurance against gonorrheal ophthalmia in every case. The physician or midwife whose obstetrical bag does not contain a bottle of two per cent. silver nitrate solution or its equivalent in the newer silver salts is a disgrace to modern medicine and should not be allowed to practice the immensely important branch of midwifery. The method of Crede, of Leipsic, as used in his lying-in hospital there, is the one most often used of the preventive measures in vogue at the present time, and in fact all methods are based practically on it. The technique of it is given here for the benefit of those who are not familiar with it. As soon as the head is born a pledget of sterile absorbent cotton wet with a saturated solution of boric acid is used to wash off the face about the eyes and some of the solution is also dropped on the eyes themselves by squeezing a pledget of cotton prepared in the same way. When the birth is complete the eyes are carefully washed out with a saturated solution of boric acid and then into each eye is dropped gtts. ii of a two per cent. silver nitrate solution. A solution of plain silver nitrate is to be preferred to any solution of the newer silver salts. More reliance can be placed upon it. With our knowledge of the very wide prevalence of venereal disease, and especially gonorrhea, every newborn baby should have the benefit of this preventive measure whether we are suspicious of the mother's birth canal or not. It can do no harm to normal eyes that don't need it and infinite good to diseased eyes that do.

THE BABY WITH CONGENITAL SYPHILIS —A REPROACH TO US.

"And the sins of the parents shall be visited upon the heads of the children," etc., is a saying that practically every one knows. Never was this biblical saying better illustrated than in the inheritance of congenital syphilis. An inheritance of shame and suffering liable to endure through the greater part of the sufferer's life, from the dawn of babyhood to closing chapters of old age if the congenital syphilitic baby ever lives that long. The poor little innocent baby, if not fortunate enough to die in utero before birth, is ushered into the world to cast shame and reproach upon its parents, even though the mother may be and is in the majority of cases as innocent of previous immorality as the virgin girl, and merely had the misfortune to marry a contaminated man, and to face shame and suffering itself. These babies with congenital syphilis have no right to be born with this disease. It is a reflection upon us that such diseased babies are born. At some time one or more physicians have failed to do their full duty to their patients and the public. Why the public? Because every syphilitic is a menace to the general health of the community in which he resides whether he be old or young, and by lack of health in some way is liable to become a public charge. The first error was made by the physician who in the first place treated the father and who either failed to notice the chancre on the penis, or mistook it for a chancroid, or who when he did recognize it burnt it out and flattered himself that by so doing he had eradicated or prevented the disease. Had he watched his patient a little while longer the coming of the hard indurated inguinal glands might have told him of his error and a little later the tell tale rash would have demanded treatment from him. Two years of mixed treatment even then would have meant one less syphilitic baby in the world later. You can correct part of this error yet by insisting when the first diseased baby appears, on that man taking a course of specific treatment so that future babies may be protected from the taint. The second error was made by the physician who treated the pregnant woman. The proper line of questioning and examining would have revealed probably a history of previous abortions, etc., or some of the secondary and tertiary symptoms of syphilis. Thus put on his guard the physician by a prompt recourse to mixed treatment to be continued throughout the duration of the pregnancy would lessen the number of syphilitic babies by one. Again part of this error can be atoned for by putting this mother on mixed treatment so that future pregnancies may be uncontaminated in this way and a disease free baby be born to the parents. The third error, and the most important one to the newborn baby, is liable to be made because the physician having delivered a baby "cursed" with this inheritance may fail to recognize it, until it gets a good start on him. Many babies so afflicted are at first treated for everything else but this for

many physicians are unwilling to make this diagnosis until absolutely forced to, for fear of hurting someones feelings. The disease however has no such scruples, so it rages on undisturbed until checked by the proper therapeutic measures. Unfortunately some doctors seem to think that the children of the poor have a monopoly of this disease and reckon accordingly, whereas the truth is that syphilis is very democratic—it can be found everywhere—in the homes of princes and paupers, in the homes of the rich and down in "Poverty Row". The symptoms of congenital syphilis should be as familiar to the physician as those of measles. The therapeutics is the same as that of the acquired variety except in dosage. Its the early diagnosis that counts though for the sooner the baby is under treatment the better the ultimate prognosis. The six cardinal symptoms of the disease, viz:—"snuffles", the macular rash of reddish hue, which later scales; anal fissues and others at dormo-mucous membrane junctions, the clawlike finger nails, the tendency to hemorrhage, especially of the nasal variety; and the acute epiphysitis with a possibly accompanying pseudo-paralysis are to be particularly remembered. All six may not be present in any one case but enough of them will be to make a correct diagnosis. A rather interesting and concise article on congenital syphilis appeared in the February issue of the International Journal of Surgery. To those who cannot read a bulky work on the subject this article is recommended.

SOUTHERN MEDICINE AND SURGERY. WHAT IS IT?

The subsequent references to what is Southern Medicine and Surgery are not intended in any sense to be an offensive criticism.

We have before us a Southern Medical Journal published in a large Southern city, with the following contents: The leading original communication is by a prominent New York specialist, which is a reprint from the New York Journal of Medicine; the next article is also a reprint, and from the American Journal of Surgery, the writer from Ohio; the next original article is copied from the Cleveland Medical Journal; the next item is entitled Acetphenetidin and is credited to Exchange; the next item is an abstract from the London Lancet, which is copied from the Medical Times, New York; the next item is copied from the International Journal of Surgery.

The leading editorial tells of a prominent Southern doctor, and his financial changes in a Sanatorium. The second editorial is copied from the Medical Record; the next item is copied from the American Journal of Clinical Medicine, Chicago; the next is copied from the New York Medical Journal; the next is from Critic and Guide, a Northern publication; the next is from a physician of New York; the next is from the International Journal of Surgery, New York; the next from the International Clinics, North; the next from Practical Therapeutics; the next from the Therapeutic Gazette, Philadelphia; the next item, the writer is from Boston. The next item was taken from the Journal of Surgery, Gynecology and Obstetrics, a Northern publication; the next from the Boston Medical and Surgical Journal; the next from the New York State Journal of Medicine; the next a reading notice dealing with a proprietary remedy; the next a reading notice from a doctor, dealing with a proprietary remedy; the next a reading notice, dealing with a proprietary remedy; next a reading notice from a Philadelphia Journal; next is a reading notice describing a proprietary medicine, by a Northern writer; the next is a reading notice in the interest of a Philadelphia manufacturer.

While we have no criticism to make about the scientific matter appearing in this journal, we do wish to state that this journal would be quite appropriate if it were published in New York, Philadelphia, or Chicago, because it is typically a Northern publication, but printed in a Southern city. If Southern Medical Editors ever expect to build up Southern medicine and surgery, they must publish Southern medical literature, even if it is at times when they can get manuscripts for publication from prominent Chicago, Philadelphia, or New York physicians or surgeons.

The journal that is before us now and one that we have great respect for, and especially its editor, is not unlike several other Southern medical publications. Probably the youngest Southern Medical Journal in existence lays stress upon the fact that it is typically a Southern Medical Journal, and half of its literature is written by professional men who possibly never saw a Southern State, but live above the Mason and Dixon line.

The writer never could understand why Southern Medical Journals publish abstracts prepared purely for advertising purposes, and in a Chicago medical journal office. Northern publications encourage Southern writers very little, and Southern publications still less. It is a deplorable situation when we think of this.

EDITORIAL NEWS ITEMS.

Dr. W. A. Oxner of Gilbert, S. C., was arrested on June 4th upon a warrant charging him with the practice of medicine and surgery without a license.

The medical laws in South Carolina have one very remarkable feature. A graduate of any South Carolina Medical College is not compelled to take the state board examinations. In all probability this is an unwise plan. It is a discrimination between medical colleges. The graduates from different schools ought to be treated alike. None of them ought to be discriminated against. This also has a tendency to almost force young men to study medicine in that state regardless of his inclinations.

The first semi-annual meeting of the Seventh District Medical Society was held at Ridgewood, S. C., on July 27th. The meeting was opened with an address by the president, Dr. James H. McIntosh. The officers of the society are: President, Dr. James H. McIntosh, Columbia; vice president, Dr. Charles B. Geiger, Manning; secretary-treasurer, Dr. Mary R. Baker, Columbia.

The papers read at the meeting were as follows:

"The Difficulties of Sanitation in Rural Districts," Dr. H. L. Wilson, Jordan.

"The 1910 American Medical Association," Dr. A. E. Hines, Seneca.

"The Alkaline Treatment of Typhoid Fever," Dr. E. E. Telott, Lynchburg.

"Goitre," Dr. A. B. Knowlton, Columbia.

"The Indications for the use of Medicine in Pneumonia," Dr. W. S. Lynch, Scranton.

"Uses of Medicine in Literature," Dr. R. W. Gibbes, Columbia.

The third quarterly meetiug of the Lexington County Medical Society was held in Lexington, S. C., on July the 4th. Several papers on scientific subjects were read. The Society is in a most prosperous condition and is doing good work among the fraternity in that section of the country.

The plans for the building of the city hospital in Gaffney, S. C., have been submitted by the architects to the building committee, and when they are accepted work will probably begin on the building immediately. The committee on building consists of H. D. Wheat, Dr. J. C. Jeffries and Dr. S. B. Sherrad. The money for the hospital has already been raised and it is quite evident that Gaffney will have a magnificent institution.

At the initiative of Dr. W. P. Timmerman, councilor of the Second District Medical Association of the South Carolina State Medical Association, quite a number of physicians from Bamburg, Lexington, Orangeburg and Saluda counties met in Batesburg on July 21st, for the purpose of organizing the Second District Medical Association.

Interesting clinical cases were exhibited by Drs. R. H. and W. P. Timmerman and D. B. Frontis, and the following papers read: "Medical Ethics," by Dr. P. M. Connor, of Saluda county; "The Mouth and Nose," by Dr. T. A. Quattlebaum, of Columbia, and "Modern Treatment of Typhoid Fever," by Dr. Riser, of Leesville.

The officers of the permanent organization are as follows: Dr. J. J. Wingard, of Lexington, president; Dr. Kleckley, of Bamberg, vice president; Dr. Sophia Brunson, of Elloree, secretary. The executive committee is composed of R. H. Timmerman, of Batesburg, G. F. Roberts, of Lexington, J. Matthews, of Denmark, and T. H. Dreher, of St. Matthews.

The visiting physicians were the guests of Drs. R. H. and W. P. Timmerman.

Dr. R. W. Petrie, formerly of Lincolnton, N. C., has recently moved to Charlotte, N. C., where he will continue his practice. Dr. Petrie will in the future specialize in the treatment of eye, ear, nose and throat diseases. On account of his great skill we feel confident that he will be very successful in Charlotte.

Dr. H. E. MacMurray, who has been practicing medicine in Fairmont, N. C., for some time has moved to Kathleen, Fla., where he will continue to practice. Dr. McMurray is a man of great intelligence, and we feel confident that he will do well in his new location.

New Editor for Texas Journal of Medicine.

Dr. I. C. Chase, who has been editor of the state journal during its five years of successful existence has asked to be relieved. The trustees of the State Medical Association of Texas have elected Dr. Holman Taylor of Marshall as editor-in-chief and business manager, at a salary of $1800 per year, with twenty-five per cent of new advertising.

State Medical Journal editors seem to be short-lived. It it is a very hard position to fill. They usually get very little pay for their service, and are infrequently thanked for their very hard work.—EDITOR.

Dr. F. M. Shook, Medical Corps, U. S. Navy, has been detailed to conduct lecture and laboratory courses at the New York Post-Graduate Medical School, during the months of August and September.

Dr. Jno. A. Ferrell, Assistant Secretary of the North Carolina Board of Health for the Eradication of Hookworm Disease, has recently issued a booklet descriptive of Hookworm Disease, which is both interesting and instructive.

Dr. Ferrell discusses, in this booklet, the disease in the following order: History and Geographical Distribution of Hookworm Disease; The Hookworm: Its Life Cycle; Symptoms of Hookworm Disease; Prevention; Prevalence of Hookworm in the South, and Economic Importance of Hookworm Disease.

Each of the above subjects are thoroughly and intelligently discussed, and the use of a great many illustrations makes the article more vivid to the mind of the reader.

Dr. R. L. Payne, of Norfolk, Va., has recently been appointed chief surgeon of the Norfolk Southern Railway Company.

Deaths.

Dr. A. A. Chance, a physician of great prominence in Georgia, died on July 16th. His death occurred in the State Hospital at Milledgeville. His home was in Wade, Ga. He was 42 years old, and a graduate of the Medical College of Georgia, having completed the course there in 1884.

Book Notices.

The Practitioner's Case Book: For Recording and Preserving Clinical Histories. Prepared and Arranged by the Editorial Staff of the Interstate Medical Journal. Imperial octavo; 286 pages; full cloth binding. Printed on bond writing-paper. With 80 colored anatomical charts (detachable), showing outlines of body and skeleton in light red and the viscera in pale blue. Index for listing patients both by name and case number. St. Louis: Interstate Medical Journal Co. 1910. Price, postpaid, $2.00.

The importance of making careful notes of cases cannot be urged too strongly on those practitioners who fail to observe this obligation; it has been emphasized both in the teaching and in the practice of every great clinician and it should be one of the first routine habits acquired by the young practitioner of medicine. Exact case records are not only of the greatest value for purposes of study and comparison, but they safeguard the physician to a large extent against suits for alleged malpractice, while their absence may give an undue advantage to a clever opposing attorney. Furthermore, it is always advisable to preserve a record of the information given to the patient or to the family of the patient, a thought suggested by the fact that in the volume now before us a special space is set aside for this purpose.

Realizing the importance of this subject, the editors of the Practitioner's Case Book have endeavored to aid the profession by devising a plan whereby the labor of exact case-recording is reduced to a minimum; the result is a book which can be most highly recommended for the use of the general practitioner and also for many specialists.

The history sheets are complete enough to cover all cases encountered in general practice, since they provide spaces for personal and family history, record of present trouble, subjective symptoms, results of laboratory examinations, and full details of a careful physical examination, followed by space for recording diagnosis (provisional or definite) and prognosis, with a brief outline of the information given to the patient or to the family of the patient. Following this there is space for details of later developments of the case.

Worthy of special mention, is an excellent series of detachable anatomical diagrams printed in light colors so that pictorial records of fractures, dislocations, cavities, areas of dullness, etc., may be made by pencil or pen.

If the convenience and other advantages of this book should be sufficiently appreciated by the profession so that a larger number of practitioners will make careful case-records, the editors may well feel that they have done a definite constructive work for the profession.

Light Therapeutics. A Practical Manual of Phototherapy for the Student and the Practitioner; with Special Reference to the Incandescent Electric-Light Bath. By J. H. Kellogg, M. D. Battle Creek, Michigan: The Good Health Publishing Company. 1910.

This work is intended to serve as a practical manual for the clinical use of the electric-light bath in its various forms, and in its various applications, general and local.

The first incandescent light bath was constructed by the author in 1891. After it had been used in the treatment of several

hundred patients at the Battle Creek Sanitariuum, a bath was exhibited at the Chicago Exposition in 1893. A visitor from Germany saw the bath, visited Battle Creek to become familiar with the technique of its use, and on returning to Germany began its manufacture and sale in that country. German medical men and financiers soon recognized the value of the method. Winternitz, of Vienna, constructed a bath after the author's description, which was first published in a paper delivered by request before the American Electro-Therapeutic Association at its fourth annual meeting held in New York, Sept. 25, 1894.

The illustrations displayed in this volume are very fine indeed, and the book is in every way very neat in its appearance. It contains 217 pages of reading matter, which will be of great value to the student of medicine as well as the practitioner.

Education in Sexual Physiology and Hygiene. A Physician's Message. By Philip Zenner, Professor of Neurology in the Medical Department of the University of Cincinnati. Cincinnati: The Robert Clarke Company. 1910.

This book is intended as a message from a physician to the people. Its chief purpose is prevention of disease. The means of prevention are modes of instruction that tend to make a pure mind, and the imparting of knowledge that helps to safeguard the individual.

The highest aim of this book is to help create a public sentiment which will demand teaching in sexual physiology and hygiene.

This little book contains 126 pages of very instructive reading matter. Its binding is neat and attractive. It gives us a great deal of pleasure to recommend this book to the laity as well as to students of medicine, and physicians.

Transactions of Fifteenth Annual Meeting of the American Laryngological, Rhinological, and Otological Society held in Atlantic City, N. J., June 3rd, 4th and 5th, 1909. Published by the Society.

This volume of transactions is nicely and neatly bound, containing many very fine articles and discussions of same, and also all the business transactions of this meeting.

The illustrations are of a very high type, and seem to be inserted quite properly.

The book contains 557 pages of reading matter, which seems to be very complete.

A Text-Book on the Therapeutic Action of Light. Including the Rho Rays, Solar and Violet Rays, Electric Arc Light, The Light Cabinet. By Garydon Eugene Rogers, M. D. Formerly Demonstrator of Anatomy in the University of New York City. With original illustrations. Published by the author.

In this volume is presented, in a concise manner, the results of the employment of the new light rays in therapeutics. In the use of X-rays, as well as other new therapeutic devices, there have been failures from want of knowledge of the use of the apparatus and from faulty technique, but it is believed that this will be overcome in time.

The author of this book, in describing diseases, has given only such details of etiology and pathology as appear necessary in order to understand the therapeutic requirements of the case. All cases have been excluded in which the new rays have not been tried, or in which they have given negative results.

The author has, as yet, been unable to give the new force a name which is descriptive of its formation or character. In writing the author was compelled to refer to it and he has referred to it as "Rho" rays, characterized by the Greek or Roman R.

This volume contains 323 pages of carefully indexed reading matter, is neatly bound, and the illustrations are very good indeed.

It gives us a great deal of pleasure to recommend the book.

A System of Clinical Medicine, Dealing with the Diagnosis, Prognosis, and Treatment of Disease. For Students and Practitioners. By Thomas Dixon Savill, M. D., London, Physician to the West End Hospital for Diseases of the Nervous System; Physician to St. John's Hospital for Diseases of the Skin, London; Formerly Medical Superintendent of the Paddington Infirmary; Medical Officer of the Paddington Workhouse, and Post-Graduate Lecturer to the London Post-Graduate Association; Assistant Physician and Pathologist to the West London Hospital; Examiner in Medicine and Clinical Medicine in the University of Glasgow; and Medical Officer to the Royal Commission on Vaccination. Second Edition. Revised by the author, assisted by Frederick S. Langmead, M. D., London, Casualty Physician to St. Mary's Hospital; Assistant Physician to the Seaman's Hospital and Physician to Out-Patients at the Paddington Green Children's Hospital, and Agnes F. Savill, M. A., St. And, M. D., Glas., Assistant Physician to the St. John's Hospital for Diseases of the Skin. Longmans, Green & Co., Fourth Avenue and 30th Street, New York. London: Edward Arnold.

This book differs from current books on

medicine chiefly in this respect, it approaches the subject from the point of symptomatology, first describing the symptoms, and then tracing these symptoms to their causes—namely, the various diseases which may be in operation.

This edition appears in one volume instead of two, as being more convenient. The amount of material remains about the same, new matter replacing old. The arrangement and scope of the work are unchanged. The book, however, has been brought thoroughly up-to-date.

This volume, containing 963 pages of carefully indexed reading matter, is nicely bound and is very neat in its appearance. The illustrations are of an extraordinary type. We feel confident that it will be a valuable addition to the medical library.

Practice of Osteopathy—Its Practical Application to the Various Diseases of the Human Body. Illustrated with 108 half-tone engravings. By Chas. H. Murray, A. B., B. D., D. O., author of Genuine Osteopathy, the Osteopathic Truth, Practical Health Hints, and the Successful Promotion of Genuine Osteopathy, all for the Osteopathic Profession. Elgin, Illinois, 1909.

While this book does not deal with the theory of Osteopathy to any great extent, the practical side of the science is presented and emphasized in such a manner as to be of great assistance to medical doctors who have neither the time nor the inclination to take a regular course in Osteopathy, and who will here receive a knowledge of the science that will be of value to them and to their patients.

This book is beautifully bound, carefully indexed, and the illustrations are very good indeed.

It gives us a great deal of pleasure to recommend the book to the medical profession.

Genesis. A Manual for the Instruction of Children in Matters Sexual. For the use of Parents, Teachers, Physicians and Ministers. By B. S. Talmey, M. D., Former Pathologist to the Mothers' and Babies' Hospital and Gynecologist to the Yorkville Hospital, New York. With Nineteen Cuts, Forty-seven Drawings, in the Text. Price, $1.50. The Practitioners' Publishing Co., New York, 12 W. 123rd St.

The author has, in this little volume, collected material which will be of great value in the instruction of children in matters of sex. It occurs to us that the author has succeeded in his effort to contribute his mite to prove the necessity of instructing the young in sex matters.

The five lessons in the second, the special part, will be of some service to all classes of instructors.

This little volume, which is attractively bound, is one of great value, and will be found useful in almost every home. It is carefully indexed and contains 194 pages of reading matter.

Pocket Therapeutics and Dose-Book. The New (4th) Edition Reset. By Morse Stewart, Jr., B. A., M. D. Small 32mo of 263 pages. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, $1.00, net.

Refraction and Motility of the Eye. With Chapters on Color-Blindness and the field of Vision. Designed for Students and Practitioners. By Ellice M. Alger, M.D., Adjunct Professor of Ophthalmology at the New York Post-graduate Medical School; Ophthalmologist to the New York Dispensary, etc. With one hundred and twenty-two illustrations. Philadelphia: F. A. Davis Company, Publishers, 1910.

This book is of especial value to the medical profession on account of its conciseness. It is thoroughly illustrated with cuts of an extraordinary type.

This volume is neatly bound and contains three hundred and eighty pages of carefully indexed reading matter.

Essentials of Laboratory Diagnosis. Designed for Students and Practitioners. By Francis Ashley Faught, M. D., Director of the Laboratory of the Department of Clinical Medicine and Assistant to the Professor of Clinical Medicine, Medico-Chirurgical College, etc., etc., Philadelphia, Pa. Containing an indican scale in colors, eight full page plates and numerous engravings in the text. Second Revised Edition. Philadelphia: F. A. Davis Co., Publishers, 1910.

This volume is believed to contain all information necessary to provide a working outline of clinical laboratory methods for the busy practitioner.

The author has endeavored in this work to present in as concise a manner as possible a selection of the analytical methods employed in the clinical laboratory, without burdening the reader with unnecessary detail, cumbersome methods. We think he has unquestionably succeeded in his efforts to do this.

The appendix has been arranged to furnish a working basis for the equipment of a clinical laboratory, at the same time according reference for the preparation of stains, reagents, etc., mentioned in the text.

This little volume is very attractively bound, carefully indexed, and the drawings and cuts are very good indeed. This book should be in the possession of every medical student and most practicing physicians.

It gives us a great deal of pleasure to recommend the book.

The Practical Medicine Series, Comprising ten volumes of the year's progress in Medicine and Surgery. Under the general Editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago, Post-Graduate Medical School, and Charles L. Mix, A. M., M. D., Professor of Physical Diagnosis in the Northwestern University Medical School. Vol. I General Medicine; Vol. II General Surgery; Vol. III The Eye, Ear, Nose and Throat; Vol. IV Gynecology. Series 1910. Chicago: The Year Book, Publishers, 40 Dearbon St.

We have before us the first four volumes of the Practical Medicine Series, representing the subjects above mentioned. These volumes seem to be very complete in every deiail.

This series is published primarily for the general practitioner, at the same time the arrangement in several volumes enables those interested in special subjects to buy only the parts they desire. All these books are very attractively bound and the illustrations seem to be appropriately inserted, and they add a great deal to the clearness of the text. Prices, Vol. I $1.50, Vol. II $2.00, Vol. III $1.50, Vol: IV $1.25.

Operative Surgery for Students and Practitioners. By John J. McGrath, M. D., Professor of Surgery at the New York Post-graduate Medical School; Consulting Surgeon to the New York Foundling Hospital; Visiting Surgeon to the Harlem and Columbus Hospitals; Fellow of the New York Academy of Medicine; Member of the American Medical Association, etc. Third Revised Edition. With 276 Illustrations, including many full-page plates in colors, and half-tones. Philadelphia: F. A. Davis Company, Publishers. 1909.

In the preparation of the third edition of this book, particular care has been given to the section on abdominal surgery. This section has been entirely rewritten and much valuable new matter added. Many of the abdominal operations range in the class of emergency operations.

The illustrations in this edition make the text very plain. The book is very attractive in its cloth binding, containing six hundred and fifty-three pages of reading matter. This volume will be a valuable addition to the surgeons library, and we take pleasure in recommending it.

Transactions of the Royal Academy of Medicine in Ireland. Vol. XXVIII. Edited by James Craig, M. D., F. R. C. P. I., General Secretary; Physician to the Meath Hospital and County Dublin Infirmary. Dublin: John Falconer, 53 Upper Sackville St. London: Bailliere, Tindall & Cox. Edinburg: James Thin. Bristol: John Wright & Co. 1910.

This volume, like all the other volumes of transactions of the Royal Academy of Medicine, is beautifully gotten up, and contains articles which will be of great value to the medical profession.

The contents of this volume are as follows: List of Officers, List of Fellows, List of Members, List of Associates and Student Associates, Rules, Annual Report, Treasurer's Report, Section of Medicine, Section of Surgery, Section of Obstetrics, Section of Pathology, Section of State Medicine, Section of Anatomy and Physiology.

The article entitled, "Some Difficult Cases of Fracture Requiring Operative Treatment," by W. I de C. Wheeler, F. R. C. S. I., is very fine indeed It has several illustrations connected with it, which are very fine.

The book is neatly bound in cloth, and contains 490 pages.

New Edition of Gray's Anatomy.

A man may be a great anatomist or a great teacher, but when one man combines these two faculties his single mind, by its complete co-operation, can produce a teaching book in which matter and method blend into a result obtainable in no other way. This double-sided genius was possessed by Henry Gray, and until Nature grants to one individual like endowments, his work will stand. Owing to the incessant activity in all branches of medicine, books in any of its departments are almost invariably short-lived. The single exception to this rule is Gray's Anatomy. In the fifty years since the author's early death it has grown beyond even the leadership in its own subject, and has become the foremost medical book in all English literature. As English is now the world-language, this is equivalent to primacy in the medical literature of the world.

Eighteen editions have been demanded in the course of its half century, and they have enlisted many of the ablest anatomists of this period. The principles on which Gray built his book have been followed, and it is not too much to say that during

two generations it has guided the teaching of its subject in America as well as England. An army of students has conned its pages, and has carried it away into practice, for it is equally valuable to the physician and surgeon for reference on underlying points. In fact, the editor has made the applications of anatomy, in medicine as well as surgery, a special feature.

Of all the editions, this new one represents the most thorough revision. Every line has been scanned for possible improvement. Anything in the nature of a possible obscurity has been clarified, passages have been rewritten, and new developments have been incorporated. Rearrangement has eliminated many duplications, and this, together with condensation in style, has renderen it possible to present more information in one hundred pages less space, to the reader's obvious advantage. Professor Spitzka, the editor, is one of the foremost anatomists in the world, and he joins to this the apt qualification of being himself an artist as well, so that the drawings from his own hand present his knowledge directly to the mind of the reader. Another of Gray's fundamental improvements, in which his book has always been unique, was the engraving of the names of the parts directly on them, so that the student learned at once not only their nomenclature, but also their position, extent and relations, the four cardinal points. The advantage of this graphic method over the elsewhere customary lines and reference letters is obvious. Gray's book was also the first to contain illustrations in colors. In this new edition, besides all the improvements in the text, the splendid series of characteristic illustrations has been equally revised, many cuts being replaced and more added, and the use of colors is more lavish than ever. No student in any profession, or in any branch of medicine, has offered to him any instrument of instruction comparable to Gray's Anatomy. It suffices to say that the new edition will excel any of its predecessors.

Abstracts of the Leading articles of the month.

Some Thoughts on Tuberculosis.—An article on the above subject, written by Dr. George Brown, of Atlanta, Ga., appeared in the July, 1910, issue of the Journal-Record of Medicine. In this paper he says:

In regard to the legal status of the tubercular patient. These people are unable to work, and the majority of them have no means. What disposition is to be made of them? It is a question which has been satisfactorily solved in Europe, and today in Germany, England and France no one of these cases need go without proper medical attention. The time is fast approaching in the United States when we will be up with the times. One of the greatest tasks of the legislators is in making changes which are absolutely necessary to meet conditions existing in a new country. Is it not time to urge our legal departments that we are not only of the greatest people in the world, but that we are one of the most progressive? All of this is true, but in many respects, I might say, in nearly all respects as far as hygiene and sanitation are concerned, we are fifty years behind the oldest countries of Europe.

In an article published in the July, 1910, issue of the Journal-Record of Medicine, Dr. L. Amster, of Atlanta, Ga., makes the following statements in reference to Hydro-Therapy:

He says most of us have an idea that hydro-therapy is a good thing; we order its use in a vague and indefinite sort of a way. We tell our patients to take a cold bath or a warm bath of a douche for the tonic or carminative effect, but we do not know the the whys and wherefores of its physiology. The essential part of the treatment we lose sight of. We do not give instructions as to exact temperature, duration, force and other indispensable points. These points are really the factors which bring about the physiological effect; the water per se is simply the medium.

He further states that we do not tell our patients to take strychnine, morphine, mercury or even harmless drugs, but prescribe the proper dose, time and mode of administration. This is the only way to get the desired therapeutic effect. It is the same way with water treatment. It is necessary to familiarize ourselves with the principles of hydro-therapy and prescribe intelligently, like we do drugs.

In an article written by Dr. W. W. Mangum of Rome, Ga., entitled "Is There Too Much Surgery?" which was recently published in the Journal-Record of Medicine he says: Is there too much surgery? Well, now, that is a debatable question, isn't it? In taking the affirmative side in this discussion, the writer trusts that he is not creating the impression in the readers minds that he is not appreciative of the great perfection of method attained by this branch of our profession; nor of the great saving of life resulting from the pioneer work of certain eminent men. Quite the contrary.

He further states that the time has come

for us to give a little more thought to drug therapy, hygiene and dietetics? There was never a time when our use of these useful agents was so accurate as at present. The determination and isolation of active principles, the establishment of definite standards, the growth of animal experimentation, and the extension of clinical observation, are slowly but surely converting the empiricism of the past into the science of the present. We may now accurately control physiological functions, modify metabolic processes, and neutralize or antagonize the products of germ activity. Modern methods of diagnosis make possible not only the determination of signs and symptoms hitherto unrecognized, but likewise enable us to place a proper valuation on them. Take, for instance, the blood pressure apparatus. A few years ago it meant little or nothing to the average physician. Physiologic chemistry, and the microscope, not only tell us certain things about pathologic processes, but enable us to accurately estimate the action and the effect of the remedies we use in our efforts to correct them.

Dermatoses and Puberty.—Dalche and Fouquet (La Gyn.) discuss the many forms of skin disease that may accompany puberty. Many of them appear for the first time at puberty, and are connected with the establishment of the genito-urinary functions. During the time from twelve to fifteen years of age all the organs undergo hyperfunction, growth ends, and the child becomes individualized intellectually and morally. Some of the skin manifestations are normal, some pathological. Normally, the growth of hair increases, and the function of the fat and sweat glands is increased. There are various causes for the skin troubles, but all act on a predisposed organism, arthritic and nervous heredity making them worse. The causes given are gastrointestinal, congestion of the skin, and internal secretion of the ovaries, thyroids, and uterus. They act through the medium of the nervous system, sometimes by direct action of the endings of the nerves in the skin, sometimes on the nerves of the cutaneous vessels. The eruptions may precede or accompany the first menstruation, and reappear at each repetition of it. They may replace the dysmenorrhea, or may occur all of the time without reference to the time of the period. The pilo-sebaceous system may be insufficient or too active; in the first case we have keratosis, in the second oily seborrhea. Acne of various degrees is frequent. Milium and moluscum contagiosus occur less frequently. Urticaria and edemas are seen. Pruritus is a nervous reaction, an exaggeration of the normal elementary cutaneous sensations. Herpes is more frequent, every period being signalized by the appearance of vesicles. Eczema or psoriasis indicates a diathetic condition. Opotherapy is the measure that will meet with good results in these conditions. General tonics and hygiene, and fresh air are of great importance.

Treatment of Tuberculosis in Children.—Nobecourt (Jour. de Med. de Paris) states rest, fresh air, and general hygiene are the keynotes in the treatment of tuberculosis in children. The question of climate, country, or seashore life is important, but secondary. Rest is absolutely necessary in articular tuberculosis, in febrile conditions, and in the period of cachexia. In other cases the dosage of rest must depend on the temperature, pulse, and general condition. Every tuberculous subject who is losing flesh or having fever must be kept in bed or in a reclining chair; in other cases repose is only relative, the patient taking several rests during the day interspersed with walks, all violent exercise being interdicted, or anything that will cause fatigue. Cerebral fatigue must be prevented as well as physical. Fresh air must be given all the time. Life in the city renders this impossible, since the air is more or less vitiated; life in the country must be substituted, but where is of little account, since cures may be obtained in all climates. It is of advantage to place the child so that he can have the proper fresh air and yet not have him separated from his parents. Fresh-air schools are valuable. Sea air seems to be especially favorable for joint tuberculosis, glandular affections, and peritonitis. It must be prolonged for months or years to effect a cure. In early pulmonary tuberculosis, especially when associated with tracheobronchial glandular affections, and in apyretic cases sea air still does good. It is in advanced febrile cases that mountain climates are preferable. Cold sea-baths are contraindicated in children under three years of age, and in nervous subjects whose reaction is poor; they may be given to those with closed external tuberculosis. In pulmonary cases they should be reserved. Warm baths in the tub may be given to all.

Microcystic Ovary.—Forgue and Massabuau (Rev. de gyn.) say that microcystic ovaries are frequently encountered in operations for other gynecological troubles. They have made a systematic study of the ovaries in twenty-three cases operated on by them, with reference to the pathogenesis, production, and clinical role that such cysts play in pelvic pathology. There can be no doubt that these microcysts can be found under physiological, as well as pathological con-

ditions. They are seen even in the newborn. In the third year of life they are found in all ovaries examined. The ovaries of pregnancy are increased in volume and contain very many cysts. There are three types of pathological ovaries which contain microcysts: edematous inflamed ovaries, large polycystic ovaries, and sclerocystic ovaries. The inflamed ovaries are large, soft, covered with soft adhesions, irregular, but not as frankly rugous as those of the sclerocystic form. The large cystic ovaries are generally degenerated lutein-celled ovaries. The sclerocystic ones are hypertrophied, rugous, scarred with bands of cicatricial tissue, hard on section, the stroma between the cysts being sclerosed. All these forms may contain cysts with hemorrhagic contents. These ovaries accompany many forms of pelvic disease—ovarian and parovarian tumors, uterine cancer, sarcoma and myoma, hydatid moles, chorioepithelioma, syncytioma, inflammatory lesions of the pelvis, intestinal and appendiceal disease, lesions of the uterus and tubes, and pelviperitonitis. They occur in young girls, and in women about the menopause. They are generally bilateral. In this type of ovary the tubes are generally not involved, but the uterus is rarely normal. Retrodeviations are frequent. These cysts are follicular, ruptured or unruptured, or from the corpora lutea. The number of follicles is increased, and an exaggerated atresic degeneration goes on, ending in cicatrization or increase in size of the cysts. The ovule early becomes altered; a cavity forms between the zona pellucida and the ovular protoplasm; the mononuclear leukocytes invade it, and the epithelium degenerates. Normal follicular atresia may go on to formation of lutein cysts. Although a few cysts may be found normally, the exaggeration of this condition is always pathological. These changes occur frequently without a causal infection. The theories as to their causation include inflammation, congestion, and dystrophy. They result really from an augmentation of the secretion of the uterus from any cause, a true nutritive activity.

Supravaginal Hysterectomy without Previous Evacuation of the Gravid Uterus at About the End of Pregnancy.—Couvelaire (Ann. de. Gyn. et d'Obst.) mentions six abdominal hysterectomies done on the gravid uterus at about term. The author reports the removal of the uterus in a woman who had been in labor for thirty-six hours before she was brought to the Baudelocque, on account of cicatricial stenosis of the vagina, and of the cervix which was undilatable, and an intense vaginitis. The removal of the uterus was easy, and there was no difficulty in controlling hemorrhage. The patient had been delivered normally four times previously, and the dystocia was an entire surprise. After the third labor there was a marked greenish discharge from the vagina. In her fourth pregnancy she had a very severe leukorrhea which caused an exploratory laparotomy to be made, but pregnancy went on to term. There was an intense granular vaginitis, but delivery was normal. There were gonorrheal lesions which, combined with traumatisms at labor, caused cicatricial stenosis which was the obstacle to delivery two years later. In such cases near labor in undesirable conditions, supravaginal hysterectomy is more useful than total hysterectomy. It permits of not entering the infected vagina, and perfectly isolates the peritoneal cavity from the vagina. There is an advantage in sectioning the cervix last of all; after division of the round ligaments and vascular pedicles the uterus is easily drawn out of the abdomen. By placing two clamps, one on each side of the inferior segment, the uterus may be amputated without getting the infected discharge into the peritoneal cavity. The fetal part which presents does not interfere with this maneuver. Hysterectomy is done by successive sections, symmetrical and descending.

Tumors of the Urinary Bladder.—An article on this subject by Dr. E. M. Sanders, of Nashville, Tenn., appeared in the July, 1910, issue of the Southern Medical Journal. In this article he states:

The general practitioner should not be expected to become an expert cystoscopist, therefore we must hope for relief from our present embarrassing statistics by bringing before the general practitioner the great importance of having a cystoscopic examination made in all suspicious cases, wherever bladder disturbances such as frequent urination, terminal hæmaturia, a slight hemorrhage after over-exertion, and especially a "symptomless hemorrhage" which is so pathognomonic of tumor are found. As slight hemorrhage may occur from time to time without the notice of the patient, one should not trust absolutely on the hemorrhage to appear before investigation.

There may be pain in the region of the kidney, due to the daming back of urine, as there are ureteral changes in a large per cent. of these cases, and Fenwick claims in all of them. Therefore he wants us not to examine the patient until the hemorrhage has cleared off, and then to use the urine naturally accumulated in the bladder as a medium when possible. This is especially important when cystitis and pyelitis exist.

Dislocation Between Atlas and Axis—Operation—Recovery.—Wallace and Bruce (Review of Neur. and Psy.) mention the case of a man who turned his head suddenly, heard a click, and then noticed a lump in the back of his neck, and that he could not bend his head under a bar in his work. There was no paralysis and no pain. Later on pain developed in the region of the great occipital nerve. Owing to the stiffness and pain he could not work, and was treated for rheumatism. Later on an X-ray photograph was taken, and it revealed a dislocation of the atlas on the axis. As very slight pressure symptoms were present no operative proceedings were taken. Over five months later he accidentally received a sudden pull on his head by means of a shawl he was wearing. This caused a sudden severe pain on the right side and back of his head. He was unable to lie down. The next day he felt some weakness of the fingers of both hands. This weakness gradually spread up the arms and down the legs. On the following day retention of urine developed. In a short time the arms and legs became completely paralyzed, as well as the diaphragm. The knee-jerk was very active on both sides with clomes and Babinski. The bowels had been confined for a week, and there was persistent retention of urine. Patches of anæsthesia and hyperalgesia were present. The patient could not cough, and his dyspnœa was excessive. Next day the patient's condition was so critical that it was thought that unless the pressure could be removed the patient had only a few hours to live. It was pointed out to his wife that an operation might mean instant death. She was persuaded to accept the risk, and the operation was proceeded with. The patient was slightly raised in bed, a long towel was placed behind the lower part of his neck and used to make traction upon it in a forward direction. The author then, standing behind the top of the bed and placing his hands below the jaws, made firm traction upwards and backwards. Almost immediately the head was felt to slip into its place with a crunching noise at the same time as the lump disappeared, while crepitus was felt by a hand which was supporting the upper part of the neck. The relief was immediate, and practically complete recovery of all his functions ultimately ensued, only being interrupted by an attack of pneumonia which developed shortly after the operation. A poroplastic jacket was applied for some time, and the patient was finally instructed to always wear a collar capable of keeping the chin well up. The authors state that fracture of the odontoid process appears to be a relatively frequent occurrence in injuries of the upper cervical spine, associated with dislocation between its first two vertebræ; but in the majority of cases it is due to great direct injury. The site of the fracture is usually at the base of the process at its junction with the body of the axis, where there is probably a locus minoris resistentiæ, owing to the persistence of a larger or smaller plate of cartilage, as a remnant of the original line of ossification of the process with the body. The remarkable recovery which the patient made from the grave paralytic symptoms which were present indicates that in all cases, however grave they may appear to be, an attempt should be made to reduce the dislocation.

A New Method of Treatment of Varices of the Lower Extremities.—Scharff (Berl. Klin. Wochensch.) mentions the following method, which he has employed with success in 90 cases: Two solutions of sublimate are employed, one consisting of sodium chloride, 23.0 gm.; mercury bichloride, 1.0 gm.; aqua dest. 3000.0 gm.; and the other of sodium chloride, 39.0 gm.; mercury bichloride, 1.0 gm., and aqua dest. 5000.0 gm. If the varicose veins are not sufficiently prominent, an elastic bandage is first applied and then the varicosities punctured with the needle of a Strauss syringe, and as soon as the blood begins to flow, at once injected. At first ½ ccm. of the weaker solution is injected at three different points, and the amount of solution gradually increased to 1, 2, 3, 4 and 5 ccm. If the reaction is not too decided the strong solution (1:3000) is then employed in amounts of ½ ccm. to about 3 ccm. at each injection. If the veins, however, are small and superficial, only small amounts of the weaker solution need be used. It is important to bring the injected fluid in contact with the endothelium of the varices. In cases of marked dilatation of the veins the elastic bandage should be left in place until the contents of the syringe have been entirely evacuated, so that the sublimate solution does not become too quickly diffused in the blood. According to the conditions present, the larger varices may be at once injected, or, first of all, the peripheral afferent branches, or both procedures may be combined. At each sitting from three to eight veins are treated, but care should be taken that the injections are never painful. A severe burning sensation shows that the fluid has been injected into the surrounding tissue. The patient should not experience more than a slight burning, and any feeling stronger than this should lead at once to the cessation of the treatment. During the following days there may be a little discomfort, and after this has subsided

a second series of injections may be made (three to six days). This interval may be reduced to two days or even one day. The most distal veins are usually first treated, that is, those at the foot or lower portion of the leg. Under this treatment he has noted improvement in walking, healing of varicose ulcers, and disappearance of painful cramps in the calf muscles. Up to now he has observed no recurrences. The treatment, however, is not entirely free from risk, since he has met with superficial gangrene and extensive infiltration after injection of 1 ccm. of the 1:3000 solution.

Pregnancy in a Rudimentary Horn of a Bicornuate Uterus.—Willett (Proceedings of Royal Society of Medicine) reports a case of a primigravida, æt. 19, admitted into St. Bartholomew's Hospital, suffering from intense abdominal pain and collapse. Menstruation was normal and regular till five months previously, since when it had been absent. The patient was in perfect health till she was seized with sudden intense abdominal pain, so severe as to cause her to faint when walking in the street. She was brought into the hospital in this condition by the police. On admission she was intensely anæmic, with all the signs and symptoms of severe internal hæmorrhage. The abdomen was distended and very tender with shifting dullness in both flanks. A centrally situated tumor rising two inches above the navel was found, in which fœtal parts could be distinguished. Per vaginam nothing abnormal palpable; no blood found in the vagina. The patient died 15 minutes after admission. Autopsy: all organs anæmic, otherwise healthy. The uterus was enlarged to about the size of a 2½ months gestation. The left appendages were normal. On the right side was a gestation sac, the upper part of which had gradually thinned and permitted the escape of the fœtus in its membranes. On the inner aspect of the rent the placenta was seen, which was covered with adherent blood-clot and evidently the source of the hæmorrhage. The giving way of the sac appeared to have been a gradual process, as a strand of omentum was adherent to the rent. The fœtus was of about five months' gestation. From the relation of the round and ovarian ligaments to the gestation sac it was plain that the pregnancy was in the rudimentary horn of a bicornuate uterus. No communication existed between the uterus and the gestation sac.

Traumatic Injuries of the Bladder.—Wolfer (Munch. Med. Wochensch.) gives a review of sixty-seven cases of injuries of the bladder comprising: (1) Injuries by way of the perineum (58 cases), the majority occurring from impalement; (2) injuries through the obturator foramen; (3) through the hypo- and meso-gastric regions; (4) through the sciatic foramen; and (5) through the bony wall of the pelvis. The prognosis in intraperitoneal injuries is very unfavorable, the mortality being 50 per cent., while in the extraperitoneal it was 11 to 12 per cent. Of the former cases the majority terminated fatally from peritonitis; of the latter from sepsis and urinary infiltration. The treatment consists of permanent or temporary catheterization, suprapubic section, or perineal incision. For the intraperitoneal cases laparotomy is imperative, the results depending upon the interval between operation and injury.

Influence of the Thyroid on the Regeneration of Peripheral Nerves.—Walter (Deut. Zeitsch. f. Nerverbeilk) comes to the following conclusions as a result of a large number of experiments on rabbits: (1) The complete removal of the thyroid in rabbits is so great a hindrance to degeneration and regeneration processes of peripheral medullated nerves, that at the place of operation, even after two months, there is scarcely a regenerated fibre to be seen. (2) Relatively small glandular remnants are sufficient to prevent this hindrance; very small pieces, however, only lessen it. (3) This stoppage of regeneration is not to be explained as a part of a general slowing of metabolic processes and cachexia strumipriva, since it does not a parallel course to them and may occur in their absence. (4) A specific action of the gland on the nervous elements must be admitted. These elements include both the ganglion cells and the cells of the sheath of Schwann. (5) Feeding with thyroid tablets is immediately followed by a continuance of the degeneration and regeneration processes, and if the correct dose be given the tablets completely replace the gland. (6) In normal animals feeding with the tablets has probably no effect on these processes. (7) The parathyroid glands do not show the above described action of the thyroids, which indicates that there is an essential difference between them. (8) The removal of all parathyroid glands results in the death of the animal with tetanic symptoms in a few days. (9) The hypophysis constantly increases in size—often to many times its original volume—in thyroidectomized rabbits.

Hand Disinfection in Obstetrical Work.—Ahlfeld (Monats. f. Geburtsh. u. Gynak.) says that hand disinfection gives as satisfactory results as the use of rubber gloves.

The infecting bacteria are not usually on the obstetrician's hands, but in the genital tract, and will be as readily carried to the upper parts or to fresh tears with covered as with uncovered hands. The risk of infecting the uterus by introducing the hand, as for separation of the placenta, is the same whether the hand be merely disinfected or gloves worn. As regards the development of puerperal infection there is no essential difference between both methods.

Treatment of Diffuse Purulent Peritonitis with Camphorated Oil.—Hirschel (Munch. Med. Wochensch.) describes a method which he has employed in nine cases of peritonitis during the last three years. In view of the fact that he reserved it for cases in which the prognosis was well-nigh hopeless, the results obtained (five recoveries and four deaths) are most encouraging. The procedure is somewhat as follows: After opening up the abdomen with a median or longitudinal incision, the site of perforation is sought and sutured. The pus is then removed with dry or moistened gauze pledgets as rapidly as possible, Douglas's pouch being also carefully cleansed. After this comparatively superficial cleansing of the abdominal cavity a 1 per cent. solution of camphor in oil is introduced in amounts of 100 to 300 gm. and spread over the entire cavity by means of a piece of gauze. Usually a counter incision is made either in the lumbar region or median line and drains inserted down to the site of disease, the openings being closed around the drains. The addition of the camphor to the oil was found to have a remarkably favorable prolonged effect; the pulse, which was scarcely to be felt before operation, becoming gradually stronger, while the tympanites and vomiting subsided. The presence of the oil, which could be observed as late as fifteen days after its introduction in cases coming to autopsy, seemed to prevent the formation of adhesions.

Strangulated Hernia.—Van Assen (Beitrage zur klinischen Chirurgie) reports upon his experience with 100 cases of strangulated hernia. Of this number 33 were inguinal, 27 in males and 6 in females; 60 femoral, 8 in males and 52 in females; 4 umbilical, all females; 1 epigastric, female. As a rule the patients were operated upon as soon as they were admitted to the hospital; only in 8 cases of omental hernia was operation postponed for one or more days. In children, as a rule, an effort was made to secure reduction by elevation of the pelvis for several hours. If this did not succeed, operation was performed without delay. There were but two deaths. In eight cases there was feculent vomiting, and in five other cases the fluid in the hernial sac was malodorous. One patient was only six days old, four were under a year, eighteen between sixty and seventy, seventeen between seventy and eighty, and three over eighty years of age. In view of the fact that these ages would naturally add to the gravity of the affection the low death-rate is worthy of remark. Usually in inguinal hernia the radical operation of Bassini was done; more lately that of Postempski. Sixty-one cases were operated upon under local anesthesia; in six cases operation was begun under local but had to be finished under general anesthesia.

The writer's conclusions are as follows: ated upon as soon as possible without effort at reduction by taxis, because even in the early hours of strangulation taxis is dangerous, whereas the results of operation are almost always ideal. In active syphilis or infection of the field of operation, however, if there is no special contraindication, taxis should be tried before resort is had to operation. In small children, if there is no general restlessness, an attempt should be made to bring about reduction by elevation of the pelvis. Strangulated hernia should as a rule be operated upon under local anesthesia.

Recognition of Syphilis and Its Activity by Provocative Injections of Mercury.—Glaser (Berliner klinische Wochenschrift) discusses the theory of Thalmann that endotoxins play a prominent part in the genesis of syphilitic lesions. In a recently published work by Wolff-Eisner on clinical immunity and serodiagnosis, the views of Thalmann are digested into formal propositions. From these it would appear that mercury destroys the spirochetes, at the same time liberating their endotoxins, the patient usually feeling and seeming worse during the earliest days of the treatment. But as a result of the operation of the endotoxins, antibodies are produced, with increasing immunity. As the undestroyed spirochetes slowly proliferate, the immunity becomes less. A delayed large macular roseola may at this time appear. The same mechanism is present in all relapses. The number of spirochete foci in the body tends to diminish, so that relapses become more and more localized. In the tertiary stage the number of parasites is small, but very small quantities of endotoxins now suffice to produce lesions of an ulcerative character. Whenever syphilis pursues a malignant course, it means that for some reason antibodies are not produced. The so-called metasyphilitic affections result from weakening of the tissues as a consequence of any severe lesion (alcoholism,

infectious diseases, overexertion, etc.). The statement possessing the chief interest in this connection, is that mercury, through liberating endotoxins, causes temporary aggravation of the symptoms. This clinical observation goes back at least to 1869, when Stoehr described the fever which may follow mercurial injections. Knowledge as to this febrile reaction, however, seems to have remained latent until 1907, when Lindenheim placed the observation on record, that in early syphilis the initial injection of mercury produced temperature rise. Herxheimer had already noted that patients became worse after the first injection (so-called Herxheimer reaction). The writer tested the subject of the provocative mercurial injection on latent syphilis—in the complete understanding of this term. The application of Thalmann's theory in Wassermann's reaction involves the possibility that with spirochetes present, mercurial injections must liberate the endotoxins. The febrile reaction which follows may be found in any case of latent syphilis which has given a positive Wassermann reaction. As the provocative injections have been tested with conflicting results, the technique of thermometry, etc., must be carefully elaborated, and the material selected with due care. The author's cases fall under two groups, as follows: (a) Individuals with gonorrhea, alcoholism, etc., with no history of syphilis, but positive Wassermann reaction, and fever following mercurial injection. (b) Individuals with history of syphilis. variability as to positive Wassermann, but with fever following the provocative reaction. It was learned that the very first injection did not necessarily cause fever, although subsequent ones might give rise to high temperatures. If subjects with positive Wasserman also react to mercurial injections to the extent of fever lasting from one to three days, we may conclude that the patient harbors virulent spirochetes and needs active antisyphilitic treatment.

The Treatment of Epistaxis.—Boyd in the Australian Medical Gazette describes a method of plugging the nares for obstinate bleeding which has resisted the usual means of treatment. The plan the writer recommende is very simple and requires only strips of clean muslin and a pair of dressing forceps. A piece of dry muslin about six inches square is wrapped around the points of a closed pair of dressing forceps by placing the latter in the center of the square and then folding the muslin around the blades umbrella-fashion. This is then passed through the nares until it impinges on the posterior pharyngeal wall, and the forceps is then withdrawn. The edges of the muslin are now spread out over the face and the hollow cone inside of the nose is plugged with small pieces of cotton wool soaked in any stringent drug. If it is not necessary to plug the post-nasal fossæ the muslin can be pulled very slightly forward after the withdrawal of the forceps so as to clear the posterior wall before the plugs are introduced. This prevents the temporary deafness which is sometimes set up. The method is much simpler and much less unpleasant than the operation of posterior plugging as it is commonly performed.

Gallbladder Surgery.—Jenckel in the Zeitsch. f. Chir. reports a series of interesting observations from the Surgical Clinic of Gottingen. Cystectomy gave the best results in hydrops and empyema of the gallbladder. the operation being done fourteen times in twenty-two cases of the former twenty-six cases of the latter. In the calculous obstruction of the common duct, choledochotomy, with drainage of the hepatic duct, was ordinarily employed. Of twenty-four cases operated upon for this condition only one terminated fatally. The operative statistics of cancer of the biliary passages were very unfaqorable. Of thirty-two cases, five died immediately after operation and twenty-seven shortly thereafter.

Surgery of the Bloodvessels.—Dr. Kruger (Archiv. f. Klin. Chir.) from a study of 46 cases of injury and disease of the peripheral bloodvessels treated in the Surgical Clinic of Jena during the last twenty years, concludes that in general the results of ligature have been fully equal to those obtained in more recent years by suture. In 23 cases In which suture might have been feasible, there were 17 cures, while in 6 gangrene occurred, necessitating amputation of the extremity. Nothing better could have been expected from suture.

Cysts of the Cerebellum.—Williamson (Rev. of Neur. and Psych.) collects a number of published cases. He points out that Horsley gives the operation mortality as 1 in 10 in cerebellar tumours, and as 1 in 27 in motor area operations. Two points are clearly in favour of operations:—(1) Craniectomy in the region of the cerebellum relieves tension, and even if no attempt be made to remove the tumour, this palliative treatment is often followed by relief of the most distressing symptoms. The headache often diminishes or disappears, the optic neuritis subsides and vision often improves. (2) The lesion may be found to be a cyst, and surgical treatment then has usually excellent results. The writer states the chances of finding that the lesion is a cyst is at least 1 in 20.

Bacterial Disturbance of Digestion.—Tibbles, in the London Practitioner, states that in bacterial disturbances of digestion the first thing should be to see that the food is as free as possible from injurious bacterial organisms. The second is to see that the food is of such a character as will not favor bacterial action. Thirdly, moderation in diet, especially of animal foods, is essential. It is not necessary to exclude animal food altogether. Although it is said that animal proteins are more prone to bacterial decomposition than vegetable proteins, it should be remembered that they are both composed of animo acids, frequently the same kinds, although the proportions are different. In fact, the animal proteins of our food were formed out of vegetable proteins. Furthermore, it has never been shown that animal proteins behave in the body differently from vegetable proteins, in spite of the arguments of the vegetarians. Putrefaction in the intestines is directly proportional to the amount of proteins in the food. It is true that Zuntz has demonstrated that more indol is produced from meat than from vegetables. But this is probably due to the fact that vegetable proteins are not so accessible either to the alimentary or bacterial enzymes, and therefore are not so readily decomposed. There is also a difference in the effect of carbohydrate foods, bread, sugar, potatoes, and legumes give rise to most organic acids and gases; on the other hand, rice, sago, tapioca, and arrowroot give rise to comparatively little fermentation. It is therefore advisable that such people should begin their course of treatment with a dietary consisting of roasted or grilled meat, plenty of cooked vegetables, a little milk, rice, sago, tapioca, arrowroot, and a little good red wine, such as burgundy. They should be forbidden to use cheese, most kinds of fish, game, pork, veal, hashed meat, stews, rich gravy soups, meat extracts, pastry cakes, tea, and coffee. As regards medicinal treatment, the bowels should be completely and regularly evacuated. It is a useful practice to combine with the aperient a hepatic stimulant, such as podophyllin, rhubarb, calomel, sodium sulphate, or phosphate. Washing out the stomach may be necessary if there is gastric dilatation. Intestinal antiseptics, such as guaiacol, the salicylates, and naphthol, are very useful. Probably one of the best means of treating the intestinal fermentation is by the administration of sour milk, especially that soured by the Bulgarian bacillus. Tablets have proved unreliable and sometimes inert. The best means of preparing sour milk is by liquid cultures of the bacilli. A rectal injection of whey to which a culture of the Bulgarian bacilli has been added is also of value in some cases.

The Clinical Significance of Gastric Hypersecretion and its Connection with Latent Disease of the Appendix.—Fenwick (Trans. Roy. Soc. Med.) considers chronic hypersecretion of the gastric juice as invariably due to organic disease of the stomach or of some other organ of the body. In the great majority of cases it is found to be associated with either ulcer of the stomach or duodenum, gall-stones, or disease of the appendix. From post-mortem evidence and from observations made at operations he was convinced up to the year 1907 that 88 per cent. of all cases of chronic gastric hypersecretion were associated with a demonstrable lesion of the digestive organs, while in the remaining 12 per cent. no lesion of the stomach could be detected. During the last two years he has had examined at the time of operation the appendix and the other important abdominal organs in 112 cases of chronic hypersecretion. In twenty-two of these disease of the appendix was the only lesion found, in twelve gall-stones, and in four cancer of the pylorus alone existed. The dependence of the hypersecretion upon these lesions was corroborated by the results of treatment. Removal of the gall-stones was followed by the subsidence of the secretory disorder. Appendectomy was, as a rule, ultimately attended by a similar result.

The writer believes that the hypersecretion is probably reflex in origin. The continuous flow of hyperacid gastric juice excites severe inflammation of the stomach, and is very liable to be followed by ulceration of that organ or of the duodenum. This ulceration is at first quite superficial in character, and is capable of producing hæmatemesis and melæna. A careful comparison of the features of the various cases would appear to indicate that each possesses certain general characteristics which are sufficiently distinctive to permit of a correct diagnosis being made in the majority of instances.

Appendicular hypersecretion is the mildest form of the complaint. It is intermittent in character over several years. Two types occur. When the appendix is ulcerated or is in a state of active irritation from the presence of a calculus, pain is a noticeable feature. Gastric analysis shows hypersecretion and hyperacidity and moderate food retention. When the appendix is thickened or adherent, the symptoms of gastric disorder are identical with those of chronic inflammation of the stomach. Subacidity with an absence of free hydrochloric acid is the rule. As a rule, no history of a former appendicitis can be obtained, but in many cases the patient ultimately, if un-

treated, develops a suppurative appendicitis.

The chief points in favor of biliary calculus as the cause of the gastric hypersecretion are: its greater frequency in women, the persistence and severity of acid regurgitations, and constant tenderness over the gall-bladder. Hypersecretion due to an actual ulcer in the vicinity of the pylorus is accompanied by various symptoms of the disorder in their most characteristic form. The "hunger pain" is intense, emesis occurs, emaciation sets in, and acute hypersecretion follows. Dilatation of the stomach is always evident. The stomach content contains a great increase of free hydrochloric acid.

Alcohol Applications in Typhoid.—Cheinisse (Semaine Medicale) reviews the literature dealing with the use of compresses of alcohol in the treatment of typhoid fever, and states that he has employed these in twelve cases with excellent results. The writers' technique is as follows: A layer of absorbent cotton, or a compress of gauze folded in four, sufficiently large to cover the abdomen entirely, is soaked in alcohol. Excess of liquid is removed by expression lest irritating effects may be produced, and the compress is applied to the abdomen and covered by a similar one of cold water. This is covered with impermeable tissue, and the whole kept in place by means of a flannel bandage. The water compress is renewed hourly; the alcoholic layer may be left *in situ* for several hours. Any irritation of the skin may be relieved by the application of lanolin. The treatment is particularly suitable for children, and the author considers it superior to cold baths. The alcohol has a favorable action on the activity of the heart, thus warding off dangerous complications.

Oleic Acid as the Cause of Eclampsia.—Polano (Zeit. f. Geburts. u. Gyn.) mentions the possibility of oleic acid derived from the placenta being the cause of eclamptic poisoning in pregnancy and labor. If this were the case it would be necessary that the oleic acid should be found in more than physiological amount in the placenta, and should have a poisonous effect on the blood cells, causing anemia through the action of sodium oleate. The action of this poison would also have to be sudden. It would result only from a direct action of the sodium oleate on the central nervous system, an action which it is known that this drug does not produce. He has made an examination as to the amount of oleic acid to be found in the placenta in a normal condition and in a condition of eclampsia; whether there is a difference in the amount of oleic acid to be found in the blood of a case of eclampsia and that of a normal woman, and whether in cases of eclampsia sodium oleate is to be found in the urine. For this purpose he examined the placenta in two normal cases and two cases in which the severest form of eclampsia had caused death; the blood obtained by venesection in a case of eclampsia and that of a nongravid case of carcinoma, and the urine obtained immediately after and three to five days after eclampsia. He records his methods and tabulates his results. Oleic acid was found in the normal as well as the eclamptic placenta; it is contained in the villi; no difference was to be found between the normal and the abnormal placenta; the blood of an eclamptic contains no more sodium oleate than normal blood; the urine obtained immediately after the convulsions differs in no way from that several days later. The blood cells are found to be increased rather than diminished in eclampsia. He says that the chemical analysis, experiments on animals, and the clinical and anatomopathological results are against the causation of eclampsia by oleic acid.

Ovarian Tumor Complicating Pregnancy, Labor, and the Puerperium.—Marshall (Jour. Obst. Gyn. Brit. Emp.) mentions the treatment as indicated by eight personal cases and the experience of others. The writer states that practically all operators agree that the correct treatment for unilateral or bilateral ovarian tumors, with or without complications, during the first six months of pregnancy, is to have them removed as soon as discovered, provided there is no absolute contraindication to operation. He says that the majority of operators favor ovariotomy during the late as well as the early months of pregnancy, but a few, owing to the much greater risk of interrupting gestation as compared with the first five or six months, advocate expectant treatment till full time in order to ensure a viable child. The present view is that ovariotomy during labor, for tumors abdominal in position, should be undertaken only if the growth absolutely prevents the passage of the child. If the tumor obstructs labor, and there is no contraindication to waiting, ovariotomy may be delayed till the end of the first stage, and the child delivered immediately after by forceps. In all other cases labor is left to nature, and, should occasion demand, is aided by dilatation of the cervix, use of forceps or manual delivery of the placenta. If the ovarian tumor is pelvic in position, attempts to deliver by forceps, version, or craniotomy are absolutely contraindicated until the obstruction has been removed. In no case should valuable time be lost in seeing what nature will

do, for the earlier in labor the obstruction is removed, the better for mother and child. There are four possible methods of treatment: 1. Reposition. Unless contraindicated this should be tried first, avoiding excessive force and consequent risk of rupture. It frequently fails, is by no means devoid of danger, and has been responsible for a much higher percentage of deaths than intrapartum ovariotomy. 2. Puncture or incision per vaginam. Where early removal of the obstruction is imperative and skilled help impossible to obtain within a reasonable time, these are the only alternatives to a practitioner who does not feel himself in a position to attempt a major operation. 3. Ovariotomy has given the best results, and is therefore the best treatment where reposition fails. The vaginal route should only be chosen if the tumor is cystic, free from adhesions, and has a long pedicle which can be easily and securely controlled. These necessary factors to success are difficult to determine, therefore the abdominal route is better, being suitable for all cases. 4. Caesarean section is rarely called for, and should be reserved for those cases where ovariotomy is impossible without it, owing to the tumor being too firmly impacted, densely adherent, or intraligamentous. It is the only alternative for an inoperable tumor. As regards ovarian tumors in the puerperium, if one is recognized at labor, as in the case of tumors abdominal in position, or in those instances where reposition of a tumor pelvic in position has been effected, ovariotomy should be performed in the first week of the puerperium, even if no urgent symptoms arise. If the tumor was punctured or incised per vaginam as a temporary measure for removing the obstruction it should pe removed not later than the second day of the puerperium. Urgent symptoms, as from torsion, demand immediate operation as soon as they arise. It is unsound advice to recommend or sanction the patient to wait till her child is weaned.

Thermosemeiology of Scarlatina.—Barannikow, in the Arch. de med. des. enf., mentions some special characteristics of the rise of temperature in scarlet fever, which will aid in giving a prognosis as to the duration and final result of the disease. The writer's work is based on the records of the Children's Clinic at the Hospital of Kharkoff. There were 209 cases submitted to the author's researches. The curve derived from these cases serves as an indication of the gravity of the evolution during the epidemic chosen for examination. He has worked out the average curve for a period of thirty days. The writer shows that scarlet fever has not ceased to be present in Kharkoff for the past six years, especially in September and October. Most of the patients were between two and seven years of age; the mortality was greatest at about the age of two years. The clinical picture of an infectious disease depends on the simultaneous action of the causal agent and the reaction of the organism against it. Predisposition, heredity and acquired peculiarities, and the kind of bacterial flora play an important role. The typical curve of scarlet fever attains its greatest rise in the first three days of the disease, after which it shows a tendency to lysis. It is possible to predict within twelve hours the time when the fever will go down from observations on the fourth or fifth day. When the curve has been affected by outside influences it is possible to predict before examining the patient the arrival of other complications. Sudden falls of temperature between the third and thirteenth days are constant in every epidemic of this fever. The fall is dependent on certain laws; the rise of temperature in the first days of scarlatina makes it possible to predict precisely when the general character of the curves of the local epidemic are known. Diphtheritic angina appearing with scarlatina causes a rise of temperature, which descends when serum is given in sufficient amount. The principal source of this infection is from chronic cases of diphtheria of the nasopharynx. These patients have immunizing bodies in their blood similar to those of horse serum. They appear to be healthy but disseminate disease constantly. Ulceration of the eyes, nose, and angles of the lips is seen, commencing at the time of desquamation, and being especially tenacious in scrofulous children and those having decayed teeth. Measles has only a slight effect on scarlatina as a complication, Whooping cough has rather a favorable effect on scarlatina.

Epilepsy in Children and its Treatment with Bromide.—Boucour (Prog. med.) says that, although the bromide treatment is the best for epilepsy, its success depends greatly on the method of administration and the attention given to the details of diet and hygiene. It is indicated in all cases in which convulsions are present and should stop all motor phenomena, but in cases of petit mal, without any convulsive movements and of mere dizziness, it is less successful. The cause of the attacks should be carefully sought out and as far as possible removed. A daily history card kept by the parents is a great aid to the physicians in the knowledge of the number and type of convulsions, and thus of the effect of bromides. The bromide must be given in

sufficient quantity and for a sufficiently long time, generally for several years. He prefers a mixture of the three bromides, sodium, potassium, and ammonium, to which he adds in some cases calcium bromide. The dose must be carried up to a point at which the motor manifestations are controlled without marked bromism, and must then be kept at that point for months or years. Irregularity and lowering of the dose without permission is responsible for most of the failures. A great aid to the effect of the treatment is given by restricting the amount of chloride of sodium that is used with the food to a small quantity. The bromide is then effective in smaller doses. It should be continued three years after the last attack.

Occurrence of Adenoids.—Yearsley, in The Brit. Journ. Child. Dis., has investigated this subject in three London elementary schools with an attendance of 2,315. The writer believes that on the average about 37 per cent. of the children in elementary schools have adenoids, and that between 72 and 76 per cent. of these have enlarged tonsils as well. On the average, 31.2 per cent. of adenoid cases are mouth-breathers, complete or partial, and that hypertrophy of the faucial tonsils may give rise to mouth-breathing in the absence of adenoids. Sex appears to have no influence upon the incidence of adenoids. Adenoids are more common about the age of eight years, and are next most frequent at about twelve years. True aprosexia is often confused with apparent dullness due to defective hearing, and it occurs in only about 4.7 per cent. of adenoid cases, is more frequent in girls, and, when present, is associated with a marked degree of adenoids. The so-called adenoid facies is uncommon, except in association with a marked degree of adenoids. The association of an abnormally high palate with adenoids is rather due to peculiarities of cranial formation than to extrauterine influences of nasal stenosis, and, if there is any relation between a high narrow palate and adenoids, it is possible that the palate shape is rather a cause of adenoids than vice versa. The presence of adenoids has more to do with the presence of carious teeth than have mouth-breathing and palate shape, and this is probably due to the increased tendency to oral sepsis in adenoid children. Irregularity of the upper incisors is less a result of adenoids than of palate shape. The percentage of ear complications in adenoid children is about 10.8, and adenoids are probably by far the most important factor in the etiology of ear affection in childhood.

Treatment for Pinworms.—Zinn (Therap. Monatshft) says that pinworms frequently penetrate the mucous membrane of the intestines, where they eventually form calcareous nodes. It is also likely that many cases of appendicitis are caused by these parasites, though this applies only to the milder cases of childhood. As the fertilized female wanders out through the anus, intense itching results. The eggs will readily be deposited on the fingers and under the finger-nails, and reinfection is thus likely. Often all the members of one family will be infected.

The following treatment is recommended (doses for adults): First day, fluid or semi-solid diet; at 3 o'clock calomel and jalap, of each 0.5 gm. (7½ grn.); at 6 o'clock a soap enema, warm, 1 to 2½ quarts. Second day, fluid diet, with two to four buttered rolls, and in the morning one cup of black coffee. At 8, 10 and 12 o'clock a powder containing santonin 0.05 gm. (5-6 grn.) and calomel, 0.1 gm. (1½ grn.). At 2 o'clock 1 oz. of castor oil, to be repeated, if necessory, at 4 o'clock. Third day, fluid and soft solid diet; in the morning a warm bath. In the morning and afternoon an enema of 1 to 2½ quarts of 0.2 to 0.5 per cent. solution of green soap. Fourth and fith days, as above, with a warm bath in the evening. Before meals and after stools the hands should be carefully disinfected. After the cure, the linen and bed sheets should be changed. The cure is best carried out in a hospital, where a careful control is possible. Instead of soap, one of the anthelmintics, such as extract of male fern, may be used in the enemas.

An Experimental Investigation into the Function of the Thymus Gland.—MacLennan (Glasgow Med. Journ.) has made an investigation into the function of the thymus gland by excising it from a number of young rabbits. Rabbits were chosen because they retain the thymus relatively longer than most animals. The conclusions which the writer arrived at were as follows: (1) The thymus may be a lymphatic gland, but it is so specialized as to be virtually something more; it is one of the series of glands which by an internal secretion regulate the various functions of the body. (2) The gland is really an accessory one, for its function can be taken up by others. It is to be remarked that simultaneous extirpation of the spleen and thymus invariably ends in death. One would therefore infer that the spleen can carry on along with its other manifold functions those of the temporary thymus. Extirpation of the thymus does not give rise to hypertrophy of adenoid tissue elsewhere. (3) The function of the

gland is temporary, for as growth advances the gland atrophies, though in man the gland never quite disappears till after puberty. There are cases on record, however, where there has been no thymus. (4) The thymus and the thyroid are closely associated developmentally, anatomically, physiologically, and pathologically. In two extirpations of the gland in the human subject the author found the thymus continuous with the left lobe of the thyroid. The results of experiments have shown that the thymus is unnecessary to the economy when the thyroid is gone, and when the thymus is removed less thyroid suffices. The importance of this relationship is apparent in certain diseases. Thus, there is a type of Graves' disease where extirpation of the thyroid is followed by sudden death, and on post-mortem examination the thymus is found enlarged. An enlarged thymus is credited—certainly right in some cases—with being the cause of death in the so-called status lymphaticus, and after removal of the thyroid the enlarged thymus gives rise to the same conditions as produce the so-called thymus death. Therefore, in such cases where thyroidectomy was deemed necessary in Graves' disease, the writer would recommend that the thymus be first sought for, and if enlarged be removed as a preliminary to the thyroidectomy. (5) In certain other diseases, notably laryngismus stridulus, thymusectomy has given good results. The result of thymusectomy is not mechanical, but due to the removal of the internal secretion of the thymus. In this disease and in children subject to "kinks" thymusectomy offers some hope of cure. In cretins, thymusectomy, by reducing the necessity for thyroid secretion, will be beneficial, and ought to be tried. (6) In children who present a fulness over the suprasternal notch during expiration, straining, or coughing, especial care ought to be taken during surgical anesthesia, which ought to be of the lightest possible.

On the Resistance of Bacillus Coli to Sunlight and Drying.—McNaught (Jour. of the Royal Institute of Public Health) records the following experiments which were carried out in the Hygienic Institute of the University, Jena. Five strains of Bacillus coli in sterilized water were exposed to diffuse sunlight outside the laboratory window, with variations of temperature from under 0° to 1.5° C. In three cases they were found alive for at least thirteen days; in one case it died out in five days. In peptone water, however, they lived under the same conditions for at least twelve days in all cases. The same strains of B. coli lived inside the window for at least fifteen days in all cases in sterilized water; in peptone water very marked multiplication occurred (the temperature inside the window ranged from 12° to 15° C.). When highly dilute fecal emulsion was added to water, B. coli could be recovered from tubes exposed outside the window after three days' exposure to diffuse sunlight; from tubes inside the window it could be recovered up to eleven days' exposure. B. coli exposed to direct sunlight in water in test-tubes and in open Petri dishes was found to die out after ten hours' exposure to direct sunlight; in one case it was recovered after nine hours' exposure, but not after seventeen hours. B. coli exposed to direct sunlight in very dilute fecal emulsion in test-tubes was greatly diminished in number after six hours' exposure to direct sunlight, but was recovered from 2 cc. of the fluid after nineteen hours' exposure. B. coli, when completely dried in a desiccator, but kept protected from light, was found to survive for at least ten days. These experiments seem to indicate that direct sunlight and large variations in temperature have a very harmful influence on B. coli, while drying and exposure to diffuse sunlight have much less marked effects.

The Elucidation of Pellagra.—Sambon, according to The Journal of Tropical Medicine and Hygiene, has just returned to London after a preliminary campaign in Italy of about three months' duration. So far, his work has been chiefly epidemiological, but he has brought back a great deal of material which he will study together with the various experts on the Scientific Section of the Pellagra Investigation Committee.

He has carried out his epidemiological survey over a vast area of Northern and Central Italy, the provinces of Milan, Bergamo, Brescia, Padua, Rome, and Perugia.

In each province he was accompanied by the Chief Medical Officer of the province and by the local Health Officers. The Director-General of Sanitation in Italy, Commendatore Santoliquido, the prefects and mayors of the places visited, and the members of the local Pellagra Commissions, afforded every possible assistance.

It is, of course, impossible to state now fully the results of the expedition, especially as a considerable amount of the material collected will need several weeks of investigation.

One great step attained is the overthrow of the maize theory which for over a century has hampered a proper investigation of the disease. Sambon entirely repudiates the maize theory. Pellagra is not due to the eating of Indian corn, either sound or damaged. The writer has ascertained in

the most definite manner that, like other endemic diseases, pellagra has its own peculiar geographical and topographical distribution. In each one of the affected provinces the disease presents special "stations," or "endemic foci," charactized everywhere by the same topographical and ecological conditions. These "stations" have remained the same for at least a century.

According to the writer, pellagra is linked to the running stream just as malaria is linked to the swamp. The author has shown that the sand fly explains the epidemiology of pellagra, just as the mosquito explains that of malaria.

Already last winter, before leaving England, he had suggested the sand-fly as the probable carrier of the pellagra infection. Now, after a careful survey of the pellagra districts of Italy, he states that he has been able to establish, quite conclusively, the truth of his surmise.

Case of Bilateral Tubal Pregnancy with Rupture on Either Side.—Wilson (The Australian Medical Gazette) mentions the case of a patient, a one-para, æt. 30, who was sent into the hospital with a diagnosis of ectopic pregnancy. She was markedly collapsed, with sighing respiration, pulse rate of 146 to 150, temperature of 97°, and extremely pallid. The menstrual period was five days overdue, and two days before admission the patient had been taken with sudden abdominal pain in the right side and had fainted. The following day she had a similar attack, the pain being mostly left sided, and had fainted several times during the day. Abdominal section was done at once on admission and revealed the abdominal cavity full of fresh blood. Both tubes were partly distended with blood clot. The left tube was ruptured in two places about half an inch from the uterine cornu, and the right tube in one place at about the same situation, and bleeding was going on from all three ruptures; but the rupture on the right side did not look so recent as the left sided ones. Both tubes were removed; the ovaries, being normal, were left. There was a recent corpus luteum in the left ovary. After clearing out as much blood-clot from the abdomen and pelvis as possible the peritoneal cavity was filled with saline and the incision closed. The patient was given three pints of saline and adrenalin intravenously before the radial pulse could be counted, but after the first few days recovery was uneventful. There was no history of a decidual cast being passed from the uterus, and owing to the patient's precarious condition the uterus was not curetted at the time of operation. He believes that this is the first case of bilateral tubal pregnancy recorded in Australia, and is of interest because this condition is rare, and also from the fact that the period of gestation in both tubes was the same, and that rupture had taken place in both tubes at the time of operation, apparently on the two previous days. The writer infers that this was probably an example of simultaneous conception in both tubes, from the fact that there was only one corpus luteum seen, and that both sacs were of about the same size and were both ruptured.

The Vaccine Treatment of Acne Vulgaris.—Western (British Journal of Dermatology) defines acne vulgaris as a condition in which there is a hypersecretion of sebaceous material associated with or caused by a microbacillus. It is believed that the acne bacillus described by Unna, Sabouraud and Gilchrist is the infecting organism. The staphylococcus is frequently associated with the acne bacillus in producing the lesions characteristic of the disease. The experiments of Fleming sustain the theory that this bacillus is the cause of the comedo and pustules.

By rubbing cultures of the acne bacillus into the sterilized skin of susceptible individuals a pustular folliculitis is produced from which the acne bacillus can be recultivated. The opsonic index of acne patients is not normal and an excessive dose of acne vaccine produces a negative phase and a new crop of pustules.

It is supposed that a seborrhoea caused by some functional disorder forms a favorable point of entry for the acne bacillus.

Three types of acne are mentioned—First in which the comedo forms the chief lesion, second where induration predominates and third the pustular type. In the first type the acne bacillus is generally found to be the infecting organism, in the second type the infection is usually mixed-acne bacillus and staphylococcus and in the third type the infection is most often due to the staphylococcus.

Before attempting vaccine therapy it is essential to determine the nature of the infection by the use of smears and cultures made from the lesions.

Either a stock or an autogenous vaccine may be used. The author finds the stock staphylococcus vaccine satisfactory but an autogenous acne bacillus vaccine is preferable although a stock vaccine will suffice in many cases.

The dose of acne bacillus vaccine is much smaller than most vaccines, varying from three to fifteen million bacteria per dose administered at intervals of eight days.

Local therapy should be carried out in

conjunction with the vaccine treatment. He summarizes cases typical of each group in which successful results have been obtained.

The Value of Serums and Vaccines in the Treatment of Disease.—Raw, in The British Medical Journal, deals with this question with reference to acquired immunity and then takes up in turn the antistreptococcic sera as used in puerperal septicemia, erysipelas, malignant endocarditis, acute tonsillitis, diphtheria, tetanus, tuberculosis, and then speaks of the use of vaccines from human sources for tuberculosis, pneumonia, staphylococcic infections, Coley's fluid and typhoid fever. The writer believes that the vaccine treatment of the latter disease, in which Wright was a pioneer, is more a prophylactic than a curative measure. The best results are obtained in staphylococcic infections. The writer believes that vaccines do good in pneumonia, but the evidence is still small. In regard to tuberculin from human sources the author has used the T. R. in 110 cases, including tuberculous glands in the neck, tuberculous peritonitis, tuberculous joints and sinuses, lupus, tuberculous meningitis, and genitourinary tuberculosis. In the localized forms of the disease, most of which he believes to be of bovine origin and conveyed to children in infected milk, he is convinced that the T. R. has an excellent effect except in those patients in whom there is some pus encysted in the body, whether in the interior of the joint or in a bone under pressure, or as an abscess in a lymphatic gland. In these cases there is a danger of tuberculin causing dissemination of the bacilli, with a resultant blood stream infection. It is a good rule never to give tuberculin if any pus is localized in the body. In many cases a course of tuberculin has had the effect of greatly reducing enlarged tuberculous glands of the neck, by dispersing the periadenoid tissue and causing a general freeing and loosening of the glands themselves, while in some the enlarged glands have entirely disappeared. If, however, there is any tendency to suppuration the glands must be opened, and in all cases the pus should be liberated. The author is convinced that the extensive dissection of glands in the neck is wrong in principle, and sometimes leads to a general tuberculosis which is fatal. In tuberculous peritonitis tuberculin has a splendid effect, and, combined with operation and drainage, many patients have been completely cured. In genitourinary tuberculosis ten or twelve injections of tuberculin have often had an excellent healing effect when everything else has failed.

Miscellaneous.

Danger Due to Substitution.

Hardly another of all the preparations in existence offers a wider scope to imposition under the pea of "jnst as good" than the scientifically standarldized Eucalyptol.

The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proved injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated and finally the medical reports commending on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit.

This fraud, which was exposed at an action tried before the Supreme Court of Victoria at elbourne, and others reported before in the medical literature show that every physician should see that his patient gets exactly what he prescribed. No "just as good" allowed.

Eclampsia.

After all the ordinary measures had failed to bring on diuresis in three dangerous cases of eclampsia, bilateral renal decapsulation was employed with excellent results. The incisions were made parallel with the twelfth rib. After decapsulation the fatty perirenal tissues were sutured and drainage instituted. No untoward results followed. The author is of the opinion that many cases now considered hopeless can be saved by this procedure.—Lichtenstein, Zentralblatt fur Gynækologie.

Syphilis of the Ear.

Berruyer says that syphilis in all stages may affect the hearing. It may affect the external ear just as it does any other portion of the skin, by the presence of papules or gummata. But the most important effects are upon the internal ear. In heredosyphilis there are suppurative conditions of the middle ear that accompany nasal and pharyngeal catarrhs of syphilitic origin. The specific catarrh of the new-born infants presents a portal of entry for secondary infections. Suppurative otitis appears as a complication a few months after birth, appearing insidiously, without pain, or general or local reaction. It may be bilateral, and in such cases is very likely to end in deaf-mutism. Later in childhood we find specific ulcerations of the nasopharynx, accompanied by inflammation of the middle ear and deafness with retracted drum. Again there is a dry otitis characterized by progressive deafness, which takes place in young people from twenty to thirty years of

age. It may be accompanied by ocular or dental stigmata. Acquired syphilis shows itself in disease of the drum, the tympanum, and the Eustachian tube. Mucous patches at the orifice of the tube determine inflammatory reactions and obstruction of the tube. This form of ear trouble may be diagnosticated by its resistance to all treatment except antisyphilitic remedies, and the diminution of the osseous conduction, showing participation by the internal ear. Tertiary syphilis in the ear depends on nasopharyngeal lesions. In the internal ear we find deafness appearing suddenly without pain at the time of puberty, without any apparent cause. Deafness is absolute and prognosis is bad. In some cases it comes on slowly. Acquired syphilis causes deafness from obliteration of the arteries of the labyrinth. This form is accompanied by neuralgias with nocturnal exacerbations. It appears suddenly and becomes absolute very soon, with little hope of cure.—Le Bulletin Medical.

Myelogenous Leukemia in a Child.

Whiphman reports the case of a child eighteen months of age, who was healthy until one year old, when he began to waste. The father gave a history of untreated syphilis. The child was unable to sit up. The frontanelle was wide open. There was no bossing of the skull. The ribs were slightly beaded, but there were no epiphyseal enlargements. The lymphatic glands were just palpable and somewhat hard. The spleen extended to the middle of the abdomen, and four and one-half inches below the umbilicus. The liver was enlarged. The blood count was as follows: Red cells, 4,080,000; leucocytes, 63,400; hemoglobin, 80 per cent. The differential count showed: Polymorphonuclears, 32.4 per cent.; lymphocytes, 5.2 per cent.; large mononuclears, 18.8 per cent.; transitionals, 12.8 per cent.; eosinophiles, 2.6 per cent.; basophiles, 0.6 per cent.; neutrophile myclocytes, 25.8 per cent.; eosinophile myelocytes, 1.6 per cent.; normoblasts, 1.6 per 100 leucocytes. Subcutaneous hemorrhages occurred upon the extensor surface of the right arm, or the right shin, on the scalp, left ear, left eyelid, and left side of the face. The child had been under observation one month, and was getting worse; the leucocytes had risen to 101,000. The child had received x-ray treatment without evident effect. The author refers to thirteen known cases of myelogenous leukemia in children. The earliest reported was four months of age.—Proceedings of the Royal Society of Medicine.

Report of the Carnegie Foundation for the Advancement of Teaching.

The above-mentioned report appeared early in June of this year, and was given the widest publicity in the medical and lay press. The report is written by Abraham Flexner, an A.B. of the Johns Hopkins University, and a brother of the more distinguished Simon Flexner, now the Director of the Rockefeller Institute for Medical Research. Mr. Flexner claims to have visited and carefully inspected every medical college in the United States and Canada. He is not a medical man, and consequently can hardly be expected to be a good judge of what is and ought to be a good medical school. He is also an employe of an institution founded by a man whose money was made by "trust" methods, and it is perhaps natural that the officials and employes of the Carnegie Foundation should also be saturated with the "trust" idea. Whilst many of his statements are erroneous, and some of them absolutely untrue, and whilst a spirit of conceit of hurculean proportions pervades the report, it is nevertheless a document of great importance and interest, and one that will have a marked influence upon medical education in this country. The report is not constructive, but destructive, in its tenor, and is entirely devoted to the interests of the endowed medical schools connected with the large universities, whilst those that are less favored with filthy, and perhaps tainted, lucre are invited to get off the earth.

The good effect of Mr. Flexner's highly egotistical report is most found in the detailed account of the financial resources and educational capabilities of the various schools of the United States and Canada. It is more than probable that many errors have found their way into this report, but if the statistics given are true, nearly one-half of the medical schools of this country have incomes of less than $10,000 annually, which is manifestly an insufficient sum for the maintenance of any school. Also a large proportion of the schools are woefully lacking in both laboratory and hospital facilities, and many of them are small in size and are situated in unfavorable locations. There is therefore no doubt that at least one-half of the existing schools could easily and advantageously be dispensed with. As has been said, the report is not constructive, but destructive, and only a few schools have met with the approbation of our censor. Mr. Flexner's attitude is a most offensive one. He assumes that most medical teachers are insincere and are actuated only by sordid motives, and that their statements can only be relied on to the extent of being considered untrue. Mr. Flex-

ner sets up an ideal which the "proprietary" schools, as he delights to call all those which are not the fortunate possessors of an ample endowment, not being able to attain, must close up and go out of existence. This ideal is the Johns Hopkins Medical School. We are all willing to concede the excellence of this famous institution, but it is by no means certain that the Hopkins methods are the best, or that it would be advantageous for many schools to follow its example. We believe the Hopkins to have a unique position in the field of medical teaching, but it is by no means proven that it would be best, even if it were possible, for their standard to be adopted by most of the other colleges.

Mr. Flexner does not much believe in the "poor-boy" plea, and his attitude toward the poor boy is very much like that of the late Mr. Vanderbilt toward the public. In other words, medical education is to be an aristocracy rather than a democracy. As was to be expected, this report has been met with furious protests from many of the attacked medical schools, and the St. Louis College of Physicians and Surgeons has already entered suit for $100,000 against the Carnegie Foundation, Henry S. Pritchett, its president, and Abraham Flexner, the author of the report. Mr. Pritchett, in his introduction to the report, says: "The attitude of the Foundation is that all colleges and universities, whether supported by taxation or by private endowment, are in truth public-service corporations, and that the public is entitled to know the facts concerning their administration and development, whether those facts pertain to the financial or to the educational side." It is interesting in this connection to note that the Attorney-General of Maryland controverts this opinion, and says: "These colleges are not public-service corporations," and further, "a college, while its work is of high interest and moment to the public, is nevertheless a private and eleemosynary corporation." If this is true, there is a very strong doubt whether information obtained under specious pretense can be given the widest publicity, to the absolute detriment of certain institutions, without the Carnegie Foundation being liable for damages.

Let us now consider the report as it concerns the University of Maryland. In fact, there is but little said that is not favorable, even though the animus of the author is entirely inimical. Some of his statements are true, some are foolish, and some are absolutely false. He seems to have a special animosity to our University, notwithstanding the fact that his brother, Simon Flexner, was very glad to receive the LL.D. degree from us in 1907. He says: "A harmful precedent was established in Baltimore with the foundation of a 'proprietary school' early in the nineteenth century—the 'so-called medical departmdnt of the so-called University of Maryland.'" This statement is absurd; we are certainly the medical department of something, and this something happens to be the University of Maryland. According to Flexner, a university charter does not make a university, a proposition we are entirely willing to subscribe to, but we are not willing to accept a statement made by him in a letter to our dean that the State cannot create a university, which, by inference can only be done by Messrs. Pritchett and Flexner. Neither do we accept the postulate that a university must originate in a school of liberal arts. Apparently Flexner, A.B., does not know that his own beloved Hopkins started as a graduate school, and not as a school of arts. We are willing to let him entertain his own opinion as to whether we are a university or a proprietary school, but we absolutely deny that we are nominally the medical department of St. John's College, Annapolis, a statement gravely made, though denied by us in ample time for correction. We do not know what constitutes a four-year high-school requirement in Flexner's opinion, but our entrance conditions are those of the Association of the American Medical Colleges, which we live up to as far as we know how. We do not admit any students, except those who have undoubted college or high-school diplomas; those about whom there is any doubt are sent to the authorized examiner for his rating or examination. Even in the matter of income we are incorrectly quoted, as the amount credited to us is said to be "estimated," whilst, as a matter of fact, the items were stated in detail, as in a balance sheet. He says we are a large commercial enterprise, and that education is overshadowed by business. It might be proper to use a strong expression in regard to this statement, but we will content ourselves by simply denying the allegation. It is quite true, as he says, that we have not sufficient income, and we are trying strenuously to secure an adequate endowment, but, according to Flexner's own tables, there are but 24 medical colleges in the United States and Canada that have more income than we. In point of attendance there are but 18 schools, including one osteopathic institution, that have as large classes as ours. "Good undergraduate laboratories, adequate for routine teaching, are provided." This is pretty high commendation. We do not profess to be an institution for post-graduate instruction, though we have quite a few post-graduate students doing work in our hospital and laboratories, which they find

satisfactory for their needs. Mr. Flexner says, "Anatomy is poor." We do not think he is competent to judge. We have an excellent anatomical laboratory, with an abundance of material and a full corps of competent and faithful teachers. Students are carefully instructed in class sections in osteology and syndesmology, and each student is supplied, gratis, with a complete set of bones to use at his home. The didactic instruction under the professor of anatomy is full, exhaustive and lucid. We take the liberty of differing with Mr. Flexner in regard to the teaching of anatomy in the University of Maryland; we believe it is exceptionally good. We may not lay much stress on the lymph spaces in the tail of the cat, but the anatomy of the human body is thoroughly taught, and that is the important matter for those who are to practice medicine and surgery on human beings. We do, however, sympathize with his gentle plaint that, notwithstanding the proximity of the University of Maryland to the Johns Hopkins, it has profited nothing by the opportunities to modernize the teaching of anatomy. Isn't it a shame? It is surprising how few medical schools own or control a hospital. We are kindly credited with the ownership of an excellent hospital of 140 beds. As a matter of fact, the capacity of the University Hospital is normally about 210 beds, and can be augmented in emergencies to about 240. Our obstetric clinic is said to be ample; during the past year over 1000 deliveries occurred in the obstetric wards and out-service department. "The dispensary is large, properly equipped and well kept." From 25,000 to 30,000 visits are made by patients to the dispensary yearly, and are used for clinical teaching. Flexner disapproves of the bounty of the State being given to the independent medical schools, and says it should be bestowed on the Johns Hopkins alone. He is in error in saying that neither the city nor the State has ever done anything for the Johns Hopkins Medical School. The State for a number of years has appropriated annually $25,000 to the Johns Hopkins University, and after the great fire, in 1904, appropriated a lump sum of $50,000 to the Johns Hopkins Hospital to recoup it, in a measure, for its losses by the fire. In conclusion, he invites the University of Maryland and the College of Physicians and Surgeons to close up and turn over their assets to the Johns Hopkins. With a naivete quite refreshing, he says: "To their present hospitals the Johns Hopkins would become the heir, thus greatly strengthening its clinical resources." We wonder when he thinks this delectable state of affairs is likely to come to pass! The University of Maryland Medical School has been in uninterrupted and successful operation for 103 years, and we strongly suspect that it will still be fulfilling a useful and beneficent mission long years after the gentle Flexner shall have been carried into Father Abraham's bosom. —Nathan Winslow, in The Hospital Bulletin.

The Importance of Pediatrics and the Position of Surgical Pediatrics in the College Curriculum.

The importance of pediatrics as a study in our medical schools and recognition of the surgical diseases of children as a department of study was among the admirable features of the report on curriculum presented at the meeting of the Association of American Medical Colleges held in Baltimore in March. The report placed the minimum number of hours to be devoted to pediatrics at 150, which is an increase of 50 percent over the present requirement of the Association, and yet is a very modest share of the 4000 hours of the clinical years (the third and fourth years) of the college course. Dr. H. D. Arnold of Boston was chairman of the sub-committee on curriculum for the clinical years, and Dr. S. W. Kelley of Cleveland member representing pediatrics. The report goes on to say, "The allowance for pediatrics is intended to include instruction in the exanthemata. In many other ways medicine and pediatrics overlap. Useless repetition can only be avoided by a proper understanding between the teachers of these two subjects, and a certain elasticity should be allowed a school for the purpose of assigning time to one subject or to the other according to where the borderland subjects can best be taught. In the same way pediatrics and surgery touch and overlap. In one subject or the other the surgery peculiar to children should receive attention. Valuable suggestions in relation to the teaching of pediatrics will be given in an appendix to this report.

Battle & Co., of St. Louis, have just issued No. 13 of their series of charts on dislocations. This series forms a most valuable and interesting addition to any physicians library. They will be sent free of charge on application, and back numbers will also be supplied. If you have missed any of these numbers, better write Battle & Co. for them before the supply is exhausted.

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for some time garrisoning a small town in Mindanao, where the social life consisted mainly of evading the festive bolo knife wielded by the Little Brown Brother. Therefore he seized upon the occasion of his birthday to vary the monotomy by brewing a punch, and invited his two lieutenants to assist in its consumption. At a late hour the party broke up, and after some manœuvring, Captain M. piloted his junior subaltern to his room, where he found the First Lieutenant peacefully sleeping on the floor beneath his bunk. Shaking him violently, he roused him at last, and said:

"Get up into your bed!"

The senior subaltern shook his head, looked very grave, and answered indignantly:

"No, sir! No, sir. You let shecond l'tenant take upper berth. I'm a first l'tenant, and I get lower one;" and he peacefully turned his face to the wall again. —August Lippincott's.

The Dose of Codeine.

Fraenkel (Munch. Med. Woch.) claims that codeine must be given in larger doses than is generally used in order that the full effect may be obtained, as codeine is from ten to twenty times less powerful than morphine. The proper dose should be two-thirds or three-fourths grain, and this amount may be given three or four times a day without any evidence of habit formation. The single maximum dose permissible is one and one-half grains and maximum daily dose is four and one-half grains. For children the daily dose may be as follows:

4 years of age.....1/6 grain.
6 years of age.....1/8 grain.
8 years of age.....2/3 grain.
12 years of age.....1 1/4 grains.

—Meyer Brothers Druggist, July, 1910.

The publication of the Report on Medical Education in the United States by Abraham Flexner of the Cargie foundation has naturally created quite a ripple of excitement among those especially interested in the subject.

The report is the outcome of a long series of personal observations by the author during which he visited every medical college in the United States. It is written in a vigorous style with an occasional attempt toward the humorous. While in general the facts presented are undeniable, we cannot but feel that Mr. Flexner has been unjust in many instances. The whole trend of his work seems to be an attempt to forcibly crush out the small colleges and build up the great institutsons. In fact he does not hesitate to mention specifically the institutions which he says must go. In the general disposal of medical colleges, he only leaves two in New England. The first impression which the report makes is that Mr. Flexner has based his results largely upon the financial resources of the institutions. This in a way may not be so far wrong, as it appears, as every one must admit that it costs money to teach medicine as it should be taught. yet it is obviously wrong to ignore the fact that the medical profession as it exists throughout the country today is largely the product of these small and privately owned schools and we are far from admitting that the morale, personnel and average professional attainments of our medical men is one whit lower than in Europe. Many of our most illustrious doctors of today are products of just the conditions which Mr. Flexner so vigorously condemns. The proof of the pudding is the eating and so long as the small schools are able to turn out men who meet with full credit to themselves at the State Board of Examiners, and in actual life practice, the graduation of the more richly endowed schools, just so long will it be impossible to argue the small school into oblivion by the results of any such pedagogic investigation as this. There is a personal association between teacher and pupil in the small school which is a great inspiration to the latter and which Mr. Flexner ignores entirely. He argues that schools which teach the full four years of medicine must be situated in large centers and yet extols to place of greater honor one school situated in a town of less than 15,000 inhabitants. We believe that the medical profession while they readily admit the advisability of continually raising standards will for a long time yet resist any attempt to regulate medical education by Standard Oil methods.—Vermont Medical Journal.

The A. M. A. Going Into Journalism.

The House of Delegates at the St. Louis convention of the American Medical Association passed a resolution empowering the Board of Trustees to undertake the publication of a group of medical periodicals, similar in scope and character to the Archives of Internal Medicine, which is now being published by the organization. This is an interesting piece of news, and we await with some curiosity the comment of the medical press of the country upon the action thus taken. The really independent medical press will of course view it with more or less indifference. Such publications as the Association may put out, now or at any time in the future, will not seriously encroach upon or compete with the independent journal, since there will always be a demand for representation of the non-

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conforming element: and this would be true even if the whole profession should become organized, for it does not rest upon the numerical or other limits of organization, but upon an inherent human quality of mind. The independent journal will always have its distinctive and necessary mission.

But the invasion of the field by the Association will undoubtedly affect all of those medical journals which, while not actually organization journals, have basked in the approval and moral support of the Association and have derived a large proportion of their strength and influence from this relationship. Some of these semi official publications have, on the strength of their Association wardship, assumed rather overbearing oirs toward the independent press, taking frequent occasion to warn them that the days of independent medical journalism were numbered, and that the future belonged to the Association journal. However, the real truth of the matter seems to be that the future of medical journalism is to be marked by a more and more definite demarcation between the organization and the independent publication, and a corresponding centralization of both: and in the outworking of this process the weaker organisms on both sides and those which owe their existence to artificial conditions are to either go to the wall or become absorbed in the movement.

Side by side with this step on the part of the Association, comes a proposition to amend the constitution so as to require subscription to the Journal of the A. M. A. as a necessary qualification of membership, and to make membership in county societies automatic qualification for membership in the national body. Under this state of affairs it will not take very long to wipe the various state medical journals from the field altogether, by so dividing their support with that of the parent Journal as to deprive them of their subsistence. And together with this outcome there will, as stated, be an abolition and absorption of the specialty journals which have been enjoying a more or less parasitic relation to the Association.

We repeat that the genuinely independent medical journal, with individuality and substance of its own, may regard this step with complacency, if not with satisfaction. It will unquestionably do much to clear the journalistic atmosphere, and promote, in both organization and independent spheres, a true survival of the fittest.—The Medical Standard.

Phenalgin, a Dependable Analgesic.

Those are those who would if possible ascribe dangerous properties to phenalgin. Fortunately the intelligent physician cannot be misled, and he knows from a glance at its formula that properly employed, it is devoid of the slightest danger. It is a significant fact, moreover, that in spite of the enormous use of phenalgin during the past twelve years there is not a single authenticated case of serious ill-effects from this remedy when employed remedially. As a matter of fact, there are few remedies of established potency that are so notably free from deleterious action. All in all, phenalgin is one of the most valuable additions to the modern armamentarium. It is skilfully and carefully manufactured, and the physician can bank on its constant, unvarying uniformity. Its remedial value every practitioner can easily prove to his entire satisfaction, and it is no idle statement that the manufacturers of phenalgin ask its therapeutic preferment on no other basis than its demonstrable uniformity, safety and pain-relieving power.

Colonic Flushing.

The supplementary treatment of intestina disorders of children by irrigation of the colon is a method of treatment long used and invariably successfully if the proper technique is used and details carefully adhered to. These details include a properly medicated solution, a proper temperature and its introduction into the bowel by a suitable tube.

Since using Glyco-Thymoline I have continued with that medicament as I have found its use invariably followed with success. The temperature should be about 70° or 80° F. Ice cold solutions I do not approve of as, in feeble children, serious collapse has often followed their use. Where the case is more acute, temperature high and patient's vitality little impaired, cold solutions may not cause such serious symptoms, but the warmer solution of Glyco-Thymoline fluid will, I am assured, reduce the tempera ture sooner by removing the removing the bacterial factors more effectually.

The child whose clothing must be removed, is placed on a table on which may be laid a quilt covered by a rubber sheet, the buttocks raised slightly and body inclined and supported towards the right side. The receptable for the solution, a glass irritating outfit or fountain syringe, is suspended about three and a half feet above patient. A soft rubber catheter of the largest size is secured to the tubing of the irrigator. About seven and a half to eight inches from the catheter's distal end of a cotton bandage whose edges are frayed is wound around a till a diameter of three and a half inches is reached. This permits a firm pressure around the anal orifice and pro-

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The fifty-sixth annual session of the Atlanta College of Physicians and Surgeons begins Wednesday, September 21st, 1910.

With a group of five college buildings, arranged upon the modern university plan, and a corps of over fifty professors and instructors, this institution stands second to no medical college in the country. The Laboratory facilities are unsurpassed, and the amount of clinical material is abundant, between 25,000 and 30,000 patients having been treated the past year in the out-door departments.

Last year surpassed any previous one as to number of students matriculated, there being 334. Owing to our large and well equipped laboratories, we can handle a large number of students easily.

A four years course of seven months each is required, the last year of which is devoted largely to clinical and practical work. The minimum educational requirements are those of the Southern Medical college Ass'n., of which we are a member. The tuition fees are $100 per session, and there are no exrtras. Board can be obtained at from $15 to $25 per month.

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duces no discomfort to the child.

The catheter, well lubricated, is now carefully introduced and the Glyco-Thymoline solution permitted to flow in advance of the tube, thus inflating the bowel and permitting an easy introduction. As the fluid is passing onwards the contour of the bowel may be seen and a careful manipulation of abdomen will assist its advance. The amount necessary to fill the colon, as the ileo-cecal valve is the limit of irrigation, will be for a child of six to eight months from fourteen to sixteen ounces, a child of one and a half to two years, thirty to thirty-six ounces. The amount specified must be present in the bowel before the Glyco-Thymoline is permitted to run out. The flushing must be continued until three and a half quarts are used. If properly done more than one irritation in twenty-four hours in acute cases, or two in the same period of time for chronic conditions will not be necessary.—T. D. Lyons, M. D., New York City.

"No Dope for Quackery."

That the patent medicines used to build fortunes on the credulity and misfortunes of the weak are manufactured and supplied to their exploiters by certain well-known and supposed to be ethical pharmaceutical houses has been known in a general way for a long time, though the enormous extent of this evil and the degree to which these "ethical" concerns participate in the profits is not appreciated by the majority of physicians.

Some interesting and enlightening facts on this subject are contained in two editorial articles on "Pharmaceutical Manufacturers and the Great American Fraud," which appeared in the Journal of the American Medical Association for July 2. Any doctor who desires to know the source of the fraudulent "Castor Oil Pills," of the abortifacient "Pennyroyal Pills" (which contain no pennyroyal), of "Danderine," "Cascarets," Neuralgine," "Drake's Palmetto Compound," "Nutriola," "Getwell Tablets," "Zymole Trokays," and other things of this kind, should read this number of the Journal. He can hardly do so without having the fact borne down upon him that the Abbott slogan of "no dope for quackery" has an immense significance to every self-respecting physician, who has the interests and the honor of his profession at heart. Certainly that house deserves the support of the profession which refuses the patent-medicine blood money, and which is willing to rest its future upon its ability to serve the medical profession well and that only.

A Tissue Nutrient for the Summer.

Ofttimes during the summer, the physician is put to his very wit's end to find a tissue nutrient for his tubercular and debilitated patients; one that will agree with them during the hottest weather. Cord. Ext. Ol. Morrhuæ Comp. (Hagee) by reason of its palatability and the ease with which it is assimilated, is the ideal agent of this character not alone in the summer but at all other seasons.

In spite of the severe criticism by the Carnegie Foundation for the advancement of teaching of Tennessee medical schools, asserting as it does that "the State of Tennessee protects more low-grade medical schools than any other Southern State", the Chattanooga Medical College has organized for the fall term. As a result of a recent meeting of the faculty of the former Medical Department of the University of Chattanooga, it was decided that the medical school should continue an independent existence. The faculty members will furnish the necessary funds themselves to maintain the college. After severing its connection with the university the school has applied for a separate charter. It is believed by the members of the faculty that they have acquired the necessary experience to educate physicians, and that to be subject to interference from a president who, perhaps, is only acquainted with the classics, is an unnecessary restriction and hardship. The entire proceedings seem to be a direct slap at the Flexner report, which unmercifully criticised the former medical department of the university, and it is significant that no change has been made in the teaching staff. One of the teachers is quoted as saying that he and his associates are more conversant with the needs of Southern medical education than the self-appointed critics representing the Carnegie Foundation.—Lancet Clinic.

Disseminated Lupus in a Child.

Little reports a girl of four and one-half years, who developed a disseminated lupus when convalescent from measles. The largest patch was on the cheek and was the size of a sixpence. There were twenty-five such lesions scattered over the back and trunk. Most of them were the size of a split pea. There was no history of tuberculosis in the family.—Proceedings of the Royal Society of Medicine.

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The equipment for the treatment of Medical patients, includes, besides the usual hospital facilities, *Baruch Therapeutic Baths, Neuheim Baths, High Frequency and other Electrical Currents, X-Ray, Vibration, Massage*, etc., together with laboratory methods of diagnosis.

The Hygeia has been enlarged four times in eight years, but the present site allowing now no further enlargement, a Suburban Annex, "Rest-a-Bit", situated in beautiful environments, is being arranged for the treatment of Convalescent and Rest-Cure-cases.

"Rest-a-Bit" Annex will be under the same management and medical staff as the Hygeia, and will be open the entire year.

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Miss Henderson, (Ex-Supt. Royal Victoria Hospital.)
Supt of Training School for Nurses.

The Journal of the South Carolina Medical Association.

Under the new management of the Journal of the South Carolina Medical Association we notice many changes, and many improvements.

The Journal is now published in Charleston, with Dr. J. C. Sosnowski, of that city, as its editor. Many pages of reading matter have been added, and the Journal is now beautifully gotten up, and contains a great deal of scientific matter which be of great value to the profession.

Dr. Flexner's Report.

It might be of interest from the psychiatric standpoint to note what particularly appealed to the newspaper reader.

First and foremost was the report of Dr. Henry S. Pritcherd and Mr. Abraham Flexner, arraigning the medical schools of the Middle West and the incompetency of their graduates. The report is said to be the result of a personal investigation. These are the particular proofs which these men advance to clinch their contention, and which the avetage reader has been discussing over the supper table:

"1. There has been for a quarter of a century past an enormous over-production of ill-trained doctors.

"2. The over-supply of ill-trained men is to be ascribed to the existence of independent or proprietary schools, commercially managed and dependent upon fees for support.

"3. The cheap quality of most of the instruction furnished by medical schools.

"4. The fallacy of the idea that these ineffective schools are justified by the argument that they enable poor boys to get a chance in the medical profession.

"5. The necessity of a complete revision of the nrrangements that now hold as between medical schools and the hospitals in which their clinical instruction is given."

As is natural, the local citizens object to this characterization, especially as Flexner gave a particularly severe solar plexus blow to St. Louis pride in saying: "The clinical facilities at St. Louis medical schools are makeshifts that are variously unsatisfactory. Still worse are the dispensary conditions."—Lancet Clinic.

New Jersey to Bar Out New York Doctors.

As the result of the recent order of the New York State Board of Regents refusing to recognize New Jersey physicians' licenses unless their holders were also practitioners in New York State, the Board of Medical Examiners of New Jersey has retaliated in kind by passing this resolution:

Resolved, That on and after November 2, 1910, further indorsement of the certificates of medical license issued by the State of New York shall be discontinued, unless the agreement of reciprocity between the States of New York and New Jersey is renewed in the interim.

Heretofore New Jersey doctors wishing to practise in New York could have their licenses accepted upon presentation for indorsement by the proper New York authorities. This reciprocity agreement was entered into on January 1, 1907, and remained in effect until about a month ago. Formal requests for reconsideration have been made upon Augustus S. Downing, First Assistant Commissioner, New York State Education Department.—Ex.

Paradoxical Symptoms in the Wassermann Reaction.

Meirowsky says that Wasserman's reaction is dependent not only on the reaction material contained in the serum, but also on the unknown properties of every constituent employed in the examination, the extracts, sheep's blood, complement, and amboceptor, to such a degree that the same serum may react positively on the first examination and negative on the second, or the reverse. Hence, with our present methods quantitative estimations of the reaction material are impossible. For practical purposes sera may be classed in three groups, sera with stabile reaction material, constantly productive of the positive reaction, sera with labile material, paradoxical with varying reaction, and sera with no demonstrable reaction material. The influence of treatment must be shown in the transformation of group 1 into group 2 or 3. As even the best extract gives occasionally a nonspecific inhibition a reaction can then be designated as positive only when a complete inhibition has been obtained with several extracts. A reaction can be designated as negative only when the same serum has reacted negatively in repeated examinations. The positive reaction with a paradoxical serum is our therapeutic and diagnostic guide. A reaction is to be designated as doubtful when it repeatedly shows a half inhibition. Very often a doubtful serum proves positive or negative at the next examination.—Munchener Medizinische Wochenschrift.

The Climacteric.

A paper treating of this subject was read before the Harvein Society of London by Leonard Williams. After a brief description of the disturbances usually observed at this epoch, he called attention to three

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Cotton Seed Oil Emulsion

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For the Treatment of Pulmonary Tuberculosis And other Wasting Diseases.

COMPOSITION:

Cotton seed Oil 33⅓%, With Hypophosphites.

Distinctive Features: Remarkable fattening qualities in cases of emaciation, inanition and malnutrition, (case records showing average gains of three to five pounds per week.) Easily digested and assimilated. May be taken without producing nausea or derangement of the stomach in 95 per cent of the cases that cannot tolerate cod-liver oil.

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causes to which some of them might be due —eye-strain, disturbances of blood-pressure, and thyroid inadequacy. The first, of course, was a common condition at this time of life, due to slight errors of refraction which were frequently overlooked, but should always be sought for; even when recognized these minor errors were often minimized, oculists themselves not realizing their important influence on the general health, and patients generally objecting to beginning glasses. These objections should be tactfully overridden, and, wherever present, errors of refraction corrected. Vasomotor phenomena might be said to be normal to the climacteric. The more common hypertesion was relieved by the hemorrhages so frequently present, and these should not be unduly repressed.

The rarer hypotension, the symptoms associated with which he described, was best treated by ergot, strychnine, and pituitary extract. But its presence should first be demonstrated by a reliable manomotor, lest disaster befall.

Speaking of thyroid inefficiency, he described a group of symptoms or signs frequently present at this age period which, while falling a long way short of myxedema, to his mind indicated a certain degree of deficiency of the secretion. When this sub-thyroidic syndrome was present he prescribed thyroid gland extract with much benefit, but not in the usual doses; half a grain twice a day, possibly increased, sufficed. He mentioned ichthyol as one other drug which he had quite empirically learned to place reliance on in the treatment of the subjective symptoms of the menopause generally.

The paper was discussed by Handfield Jones, who remarked on the frequency with which the menopause was held responsible for symptoms. He supported blood-letting in suitable cases. He did agree that thyroid inefficiency was of importance as a cause of symptoms during the climacteric, and pointed out that in these days numbers of women treated increasing obesity with thyroid extract and yet suffered from the usual symptoms at the change of life. He considered that ichthyol acted as an intestinal antiseptic.—The London Medical Lancet.

While Southern medical schools have been the subject of criticism for their alleged failure to meet the requirements of modern life, news comes from Mississippi of a proposed institution rivalling anything thus far suggested in the effete East. A former member of the Mississippi State Board of Health, Dr. H. M. Falkes, of Biloxi, has addressed a letter to the members of the State Medical Association urging the incorporation of what he would term the Mississippi Academy of Medicine, which is to be under the direction of the House of Delegates of the State Association. He suggests that the institution be capitalized at $50,000, with shares at one hundred dollars each, to be placed with members of the profession throughout the commonwealth. When fully fully paid in, a permanent home is to be erected at some desirable location, to be made the continued meeting place of the association. The purpose is to equip the building with a medical library adequate to the demands of the members, books to be loaned upon demand to every member in good standing and forwarded to him within an hour of receiving the request; it is contemplated to place a large pathological and anatomical museum in the building, to install an extensive bureau of information—nothing is to be omitted that will in any way further the interests of the membership. The advantages of such an institution are obvious. The consummation of the movement would be the most telling argument conceivable of the progressive nature of Southern medical men; for it is certain that other State associations would hasten to follow Mississippi's example.—Lancet Clinic.

Rectal Myomata.

Descocudres describes a unique case of fibromyoma of the rectum. These growths are rare, only about 80 cases of intestinal fibromata being published, of which 16 involved the rectum. When internal they polypi with pedicles of varying length. When external they develop upward into the abdomen, or downward and backward into the pelvis. The author's case developed backward under the skin of the buttocks, and was so large that it hung down in walking and she patient sat upon it without any pain. It had a large fibrous pedicle attached to the upper wall of the rectum. These growths develop at the expense of the muscular coat of the intestine. They may be of congetial cause of the intestine. They may be of congenital origin, a development of embryonic tissue, the immediate cause of the growth being irritation. The cause constipation, pressure symptoms, hemorrhage, and edema of the legs. The prognosis is bad aside from removal, since they endanger life by hemorrhage, obstruction of the bowels, or malignant degeneration.—Revue de Gynecologie et de Chirurgie Abdominale.

Oklahoma No Longer Reciprocates.

Announcement is made by the Oklahoma State Board of Medical Examiners that

Fellows' Syrup of Hypophosphites

Probably no specific known to the profession, during the last half century, has met with such marked success.

Reject < Worthless Substitutes Preparations "Just as Good."

after July 12, 1910, all persons desiring to enter into the practice of medicine in that State must pass the examination of the Oklahoma board.

Changes in the Personnel of the Medical Faculty at the University of Pennsylvania.

The Trustees of the University of Pennsylvania have announced recently certain changes in the personnel of the teaching staff to go into effect at the beginning of the next academic session, September first, 1910.

To fill the Chair of Theory and Practice of Medicine made vacant by the resignation of Dr. James Tyson, Dr. David L. Edsall has been transferred from the Chair of Pharmocology and Therapeutics and the vacancy in the latter will be filled by the appointment of Dr. A. N. Richards, now professor of Pharmocology in the Medical School of the Northwestern University.

$100,000 has been received for the endowment of a Chair Physiological Chemistry and Dr. Alonzo Englebert Taylor of the University of California will be its first occupant.

Dr. Richard M. Pearce of the University and Bellevue Hospital Medical College of New York, has been appointed Professor of Pathology. Dr. Pearce will also direct the work of the department of Research Medicine recently established by an endowment of $200,000.

Dr. Allen J. Smith, the present Dean of the Medical School will be the occupant of the new Chair of Comparative Pathology and be at the head of the newly instituted courses in Tropical Medicine.

Dr. Paul Lewis, who will have charge of the Laboraty of the Phipps Institute for the Study, Prevention and Treatment of Tuberculosts, now an integral part of the University, has been elected Assistant Professor of Pathology.

The Streptococcus of Scarlatina and the Reaction of Fixation.

Foix and Mallein say that after an important and remarkable series of experiments Gabritchewski has isolated by hemoculture a streptococcus with special characters of virulence and agglutination, whieh he regards as the cause of the disease. The authors in 12 cases obtained 83 per cent. of positive agglutination tests with the streptococcus isolated from the throats of scarlatinous thildren. They believe that here is an important differential characteristic between the streptococcus of erysipelas and of scarlatina based on this, and give the following conclusions. The serum of scarlatinous children contains antibodies active against the streptococcus of the scarlatinous throat; this is found early and in the late stages of the disease; the reaction of Bordet is absent in the other stretococcemias, while present in scarlatina; it may serve to establish a serodiagnosis; we do not yet know whether this is a specific reaction. Schliessner has obtained similar results, showing 81 per cent. of positive reactions.—La Presse Medicale.

Influence of a Diet Without Salt as a Case of Habitual Death of the Fetus.

Prouvost gives the history of a case in which the first two pregnancies resulted in normal, living children, but in whom there followed a succession of dead children. The mother desired living children, and was very much depressed by her inability to have living ones. The dead children were swollen and edematous. The author thought that he would try removal of salt from the diet of the mother, who was very fond of salt, on the theory that too much salt was retained in the blood of the fetus. He made the patient eat meals that were specielly prepared without salt, eating only dinner with the family. This was continued for some two years, when the patient brought forth a living, healthy baby. Two years later the woman became pregnant again, and the diet was repeated with a similar result. If results can speak for the cause of such a condition, it seems evident that the mother was taking too much salt, and that, for some reason, it was retained by the fetus in excess, producing aa intoxication.—Bulletin de la Societe d'Obstetrique de Paris.

Treatment of Tuberculosis in Children.

Nobecourt says that fresh air, repose, and good hygiene are the important elements in the treatment of tuberculosis in children. Rest must be absolute whenever there is fever, emaciation, or joint tuberculosis. In others rest may be taken several times a day, interspersed with walks, but all violent exercise must be forbidden. As to fresh air, it cannot be attained in the city, but any climate may be suitable, it being advisable in many cases not to separate the child from its relatives, but to have a sort of home sanatorium in the country. Sea air is especially valuable in joint tuberculosis, in peritonitis, and in glandular cases. Early pulmonary cases, when the bronchial glands are involved, are especially suited to the seashore; in general afebrile cases do well there. The climatic treatment must go on for months in order to establish a cure. Cold sea baths are contraindicated under three years of age and in pulmonary cases. Warm baths may be given in all cases.—Journal de Medecine de Paris.

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Don't put your Antiphlogistine can away in the summer. Besides now and then a case of pneumonia, there will be many other uses for it:

First— Bruises, sprains, baseball fingers, etc.

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N. B. Be sure and take a can with you on your vacation, you may find it useful when far from a drug store.

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INTESTINAL ANTISEPSIS

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FORMULA:

Each fluid ounce contains:

Bismuth Oxide Hydrated	**12 grains**
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Potassium Guaiacol Sulphonate	**4 "**
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INTESTINAL ANTISEPSIS—has for many years been accepted with growing appreciation as the rational treatment in gastro-intestinal diseases that are the result of morbid fermentation or putrefaction.

Many minor ailments arise from these conditions such as diarrhea dysentery, malnutrition, vomiting, headache, gastro-intestinal irritation-the so called "biliousness" with or without well marked nervous symptoms.

The class of remedies possessing the power to destroy the minute organisms of disease and to arrest septic processes are so distinctive as to require their recognition in a group by themselves.

The therapeutic application of these remedies must, however, as far as possible, be based on their physiological action; for the results of such research are the most reliable evidences of advancement in the therapy of drugs. It is equally true, however, that well established facts, though savoring of empiricism, should not be overlooked much less ignored, especially when confirmed by professional experience.

BISMACOL—as its name implies—is a combination of the new and the old.

BISMUTH—an old and tried remedy—has come to the front and taken its place as a valuabe adjunct to the many new and highly extolled antiseptics and is now recognized as one of our most powerful bactericides,

GERANIUM—is referred to by our best authorities as our most valuable vegetable astringent and tonic to enfeebled mucous surfaces.

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The Salt used in Bismacol is made with True Salicylic Acid from Natural Oil.

PANCREATIN—Most active in Alkaline Media—overcomes digestive disturbances indicated in lienteric diarrhea and in the diarrhea of infants where there is emaciation.

POTASSIUM GUAIACOL SULPHONATE—is an odorless and palatable Guaiacol derivative—non irritating—readily assimilated and now accepted as one of our most reliable intestinal antiseptics.

SODIUM SULPHOPHENATE—is an intestinal disinfectant whose use is indicated wherever toxins or putrefactive bacteria follow the breaking down of structure.

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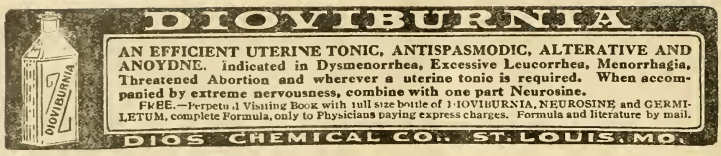
Lacerations of the Cervix.—Gushee (Bull. of the Lying-In Hospital) presents a study based on 1,000 primiparæ. Of these, 80.7 per cent. showed laceration of the cervix, 41.1 per cent. laceration of the perineum, and 33.3 per cent. laceration of both cervix and perineum. From this study he believes that the cervix is injured more often than is ordinarily believed, that it is most commonly torn in a lateral direction, and if this is deep enough, there is great danger of severe hemorrhage, owing to the close relation of the blood-vessels to the side of the cervix; that the anterior lip of the cervix may be incised with the advantage in order to avoid such extensive tears, that great care should always be exercised in all manipulations of the cervix; that there is great danger of lacerations from the after-coming head following a version, that instrumental dilatation is dangerous even in the hands of the most expert; that the membranes must be preserved as long as possible, that if a deep cervical tear is suspected to be the cause of a postpartum hemorrhage, the laceration should be repaired at once; that the upper angle of the tear should always be closed first, and after the operation is done an inspection should be made for the purpose of determining whether the cervical canal is sufficiently large to provide for free drainage from the uterus during involution.

Transperitoneal and Extraperitoneal Cervical Cesarean Section.—Lange (Monat. f. Geb. u. Gyn.) says that hebotomy is a blind operation in comparison with the cervical Cesarean section. This operation has been replaced in the Posen Hospital since December, 1908, and the supravaginal section has been done in fifteen cases. He prefers the transperitoneal route. He thinks that the peritoneum is often torn and that gauze pads are a better protection for the peritoneum than a suture placed after the membrane has been torn. In five cases the transperitoneal route was taken, in ten the extraperitoneal. Three cases were operated upon for eclamsia, one with contracted pelvis. In another case there was great edema of the vulva. All three were transperitoneal operations. Placenta previa is not regarded as a legitimate indication for Cesarean section. Thirteen of the cases operated on had no complications during the puerperial period. The results for the children were good; eleven were born normal, four ashyxiated, of whom three were easily resuscitated. One premature child in a case of eclampsia was dead. One child had a hydrocephalus. Thirteen children left the hospital in good condition. In the author's cases the trans- and extraperitoneal methods gave equally good results.

Modern Methods of Delivery in Contracted Pelvis.—Tweedy (Proc. Royal Soc.) mentions the recent changes introduced into operative obstetrics. He advocates the use of Skutsch's pelvimeter, the proper use of which needs considerable practice, but in the hands of an expert gives records which are accurate to within a sixth of an inch and treatment should be based on the accuracy of its findings. He divides contracted pelves into five degrees. The first four are separated from each other by half-inch measurements in the conjugate and the fifth comprises all less than 2¼ inches in the true conjugate. The treatment for generally contracted pelvis of a certain degree should be regarded as worse by half an inch than those of simple flattening. Contractions of the first and second degree are seldom diagnosed with certainty unless complications arise suggesting the advisability of pelvic measurements. They may lead to abnormalities of presentation, prolapse of the cord, premature rupture of the membranes, and prolonged first and second stages. Provided a child is not abnormally large, a woman may be expected to deliver herself naturally and safely if ample time is allowed. Trouble in such cases usually arises from meddlesome interference, attempts to deliver when the rim of the os is still felt or the head not fixed by its largest diameter. The employment of Walcher's position to assist the fixation of the head and forceps application when the head has properly fixed, are other aids that may hasten delivery. In such cases prophylactic version or induction of premature labour are never justifiable. In contraction of the third degree with a conjugate measuring between 3¼ inches and 2¾ inches, the classical Cæsarean section is the operation of election if the patient is seen early in labour, is healthy and in suitable surroundings. When performed under favorable conditions it can be relied upon for the delivery of a living

child without subsequent harm to the mother, as exemplified by a total absence of omental or intestinal adhesions, by complete absorption of buried silk sutures and an absence of a visible mark in the uterus to point to the site of the incision, as proved by observations on patients who have had to submit to a subsequent Cæsarean section. If, however, such a contraction is encountered in a woman advanced in labour with membranes ruptured, pubiotomy or symphysiotomy are preferable. Pubiotomy is the ideal procedure, but in both hæmorrhage is slight, convalescence is uneventful, and the patients are able to walk unaided on the 17th day. He highly recommends these procedures when danger symptoms arise during labour to a mother or child with a pelvis not smaller than 2¾ inches in the true conjugate. Perforation is the obvious resort if the child is dead. For contractions of the fourth degree, a true conjurate between 2¾ and 2¼ inches, the contraction is too great for pubiotomy symphysiotomy, and is such cases the extra peritoneal Cæsarean section is the operation of choice when the classical operation is not indicated. Mutilating operations are very difficult and highly dangerous, and not to be recommended. The various operative procedures are described in detail, and in the discussion of their relative merits and field of usefulness the author points out that until they are properly appreciated, it will be impostible to stay the present sacrifice of life which has resulted, and must result from such obsolete procedures as induction of premature labour, prophylatic version, high forceps and perforation. He further adds that it is only a matter of a few years before all these methods of delivery will be viewed with abhorrence, that perforation of the head of a living child will be considered criminal, and that allowing a woman to die because of delay in delivery or by obsolete methods will be condemned. He sums up his views on the treatment of pelvic contraction as follows:—(1) Induction of premature labour is never justifiable. (2) Perforation is not permissible unless the child is dead. (3) Turning should never be employed as a treatment for contracted pelvis, but may still be performed for complications of labour, such as prolapse of the cord, when associated with contractions of the first and second degree. (4) In the greater degree of contraction time should not be wasted in an endeavour to obtain natural delivery. (5) On the other hand, in the lesser degrees, ample time should be given the woman to enable her to deliver herself, if possible. Eight or ten hours may be necessary for the moulding of the head, and interference should not be considered until there are evidences of fœtal or maternal distress. Once fœtal symptoms of distress are manifested there should be no delay in delivery. Walcher's position should not be forgotten as an aid to fixation of the head. (6) High forceps should never be applied until all arrangements are perfected for an operation to enlarge the pelvis. It is a mistake to proceed to the latter expedient until forceps have been tried tentatively, for they occasionally accomplish their purpose under the most unexpected circumstances. (7) In all obstetric operations the best results can only be obtained by the systematic use of rubber gloves.

Radical Operation for Non-Strangulated Hernia.—Imfeld (Deutsche Zeitschrift fur Chirurgie) reports upon the operations for hernia in Kocher's clinic, with the after-results of the same, performed in the years 1900 to 1903 inclusive. There were in all 454 operations, distributed as follows. 204 right external inguinal, 177 male and 27 female; 138 left external inguinal, 118 male and 20 female; 10 right internal inguinal, all male; 14 left internal inguinal, all male, 22 right femoral, 7 male and 15 female; 16 left femoral, 9 male and 7 female; 25 umbilical, 9 male and 16 female; 21 epigastric,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17 male and 4 female; ventral, 1 male and 3 female. Sixty of the inguinal hernias and 4 of the femoral were double. In size 144 of the hernias varied from that of a hazlenut to that of an egg; 137 from that of an egg to that of a fist; while 69 were as large as a fist or over. The age of the patients varied from less than six months (8) to between seventy and eighty years (3). Operation was done in most cases by Kocher's method, with here and there a modified Bassini operation. There were two deaths, one from thrombosis and the other from diffuse fibropurulent peritonitis. Both these had been operated upon by assistants, and there had been some irregularity about the technique.

Professor Kocher himself operated very seldom in this series of cases, and then only to demonstrate the ordinary variety of cases. In his clinic the operations for hernia are every year entrusted more and more to assistants. Several times a hematoma formed at the site of operation. This was either let alone, aspirated, or turned out, according to size. In four cases healing occurred after suppuration; all the remainder healed by first intention—99.1 per cent. Silk was always used for sutures. As to the end results, after five to eight years' observation it was found that the average of recurrence under the different methods of operation in 247 cases traced was 5.6 per cent.

Treatment of Duodenal Ulcer.—Moynihan (London Lancet) believes that the treatment of chronic duodenal ulcer should always be surgical. In the first attack medical treatment may be tried. Observations on cases that come to surgeons for operation shows that the ulcers have usually existed a number of years, and the condition of the duodenum is such that its restoration to a normal state is impossible. Gastro-enterostomy is almost always necessary. It is the writer's method to enfold the ulcer in exactly the same manner as if perforation had occurred, thus allowing it to heal more readily.

Peptic Ulcer after Gastroenterostomy.—Van Roojen in the Archiv. f. Klin. Chir., Hft. 2, from a study of eighty-one cases observed in the Surgical Clinic of Amsterdam, believes that there is no single method which guards against the occurrence of peptic jejunal ulcer after gastroenterostomy. In the majority of cases the ulcer is situated at the anastomotic opening or in its immediate vicinity. It may be due to the action of the acid stomach contents upon the damaged intestinal wall in persons predisposed to gastric ulcer, but particularly in those in whom the intestinal mucosa is especially vulnerable owing to atheroma of the vessels or disturbed function of the vasomotor nerves.

Pyelotomy as an Operation for Renal Calculus.—Makkas (Deutsche Zeitschrift fur Chirurgie) says that for thirty years pyelotomy enjoyed a brief favor among surgeons. However preference for nephrotomy as a means of approaching the renal pelvis soon swayed the minds of the majority, leaving but a few adherents to the former method. More recently with improvement in X-ray technic and fu ther developments which have shown the risks of the earlier operation to have been exaggerated and its scope of usefulness less limited, the question of pyelotomy as a method of choice has again been revived. Several surgeons who formerly advocated nephrotomy exclusively now under appropriate indications employ pyelotomy for removal of stone from the pelvis. It had been held that the kidney must be freely delivered before incision by suture before replacing the organ. Without suture fistula would certainly result. This, however, is not true. In not one of eighteen cases in which Zuckerkandl left the pelvic incision partly open did fistula occur. Large stones may be removed by prolonging the incision in the pelvis into the parenchyma; thus another objection to the operation is met. Small, hidden stones need not be overlooked with the X-ray as guide and an incision large enough to admit the finger. While the author writes thus in favor of pyelotomy, he yet believes nephrotomy is the operation of choice in pyelitis, pyelonephritis, pyonephrosis, in sclerosis of the fatty tissue surrounding the renal pelvis, in the pelvis, in the presence of large coral stones and in cases in which the diagnosis is obscure before operation.

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Certainly nephrotomy is at a disadvantage as against pyelotomy, as far as concerns post-operative hæmorrhage. In performing pyelotomy suture of the pelvis is made in three steps; a submucous, continuous with fine cat-gut; a continuous Lembert with fine silk; the fatty tissue about the pelvis is then united with a third line of sutures. The first alone has sufficed for primary union without fistula.

Treatment for Pinworms.—Zinn (Therap. Monatshft.) says that pinworms frequently penetrate the mucous membrane of the intestines, where they eventually form calcoreous nodes. It is also likely that many cases of appendicitis are caused by these parasites, though this applies only to the milder cases of childhood. As the fertilized female wanders out through the anus, intense itching results. The eggs will read-

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ily be deposited on the fingers and under the finger nails, and reinfection is thus likely. Often all the members of one family will be infected.

The following treatment is recommended (doses for adults): First day, fluid or semi-solid diet; at three o'clock calomel and jalap, of each 0.5 grams (7½ grains); at six o'clock a soap enema, warm, 1 to 2½ quarts. Second day, fluid diet, with two to four buttered rolls, and in the morning one cup of black coffee. At eight, ten and iwelve o'clock a powder contoining santonin 0.05 grams (5-6 grains) and calomel, 0.1 grams (1½ grains). At two o'clock 1 ounce of castor oil, to be repeated, if necessary, at four o'clock. Third day, fluid and soft solid diet; in the morning a warm bath. In the morning and afternoon an enema of 1 to 2½ quarts of 0.2 to 0.5 per cent. solution of green soap. Fourth and fifth days, as above, with a warm bath in the evening. Before meals and after stools the hands should be carefully disinfected. After the cure, the linen and the bed sheets should be changed. The cure is best carried out in a hospital, where a careful control is possible. Instead of soap, one of the anthelmthics, such as extract of male fern, may be used in the enemas.

Infantile Glaucoma or Buphthalmia.—Allport (British Medical Journal) reports the case of a child, three years old, who had a marked buphthalmos. The corneæ were considerably enlarged, and showed extensive nebulous opacities. The tension was high, photophobia was present, and the sight was seriously impaired. In April he performed anterior sclerotomy on the right eye; the Graefe knife was carried across the anterior chamber, and the point emerged through the sclera on the other side. By a few sawing movements the intercalary region was incised on both sides of the cornea, leaving, however, a bridge of sclera intact at the upper part. Unfortunately these incisions healed very rapidly and firmly, and the tension soon became as high as ever. He then decided to alter the procedure, and in the following June he did an anterior sclerotomy on the other eye, but the incision was extended so as to cut entirely through the upper part of the intercalary region. The knife as it emerged through the sclera above the cornea was not allowed to cut through the conjunctiva, but this membrane was undermined for a few millimeters, producing a bridge of tissue, which held the flap like portion of the cornea in position. The idea of this operation was to obtain a scar at the filtration angle which would be sufficiently loose and porous to allow the intraocular fluid to escape through it under the conjunctiva, and so produce a permanent drain. The result more than fulfilled his expectations, the tension soon becoming normal, and the symptoms gradually abated. In September a similar operation was performed on the other eye with an equally satisfactory result.

The Feeding of Children with Gastro-intestinal Disease.—Finkelstein and Meier (Berliner Klinische Wocheuschrift) ferment a litre of milk and then filter it so as to separate the curd from the whey. The casein and fat are then finely emulsified in one half litre of water to which one half litre of buttermilk is added. The mixture thus formed they call Eiweissmilch; it contains a minimum amount of milk sugar, a small amount of salts, and an increased proportion of casein and fat. The writers say that it is the most certain remedy we yet have for all gastrointestinal diseases in children.

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The Surgical Aspect of Stone in the Kidney.

Dr. J. A. Cresler, of Memphis, Tenn., in an article on the above subject, recently published in the Southern Medical Journal, made the following suggestions:

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pelvic wall of the kidney may be opened and the stone removed without doing damage to the kidney structure. After its removal the rent is closed by carefully applied catgut sutures. If the stone is large, filling up several of the calyces, it cannot be brought out through the small pelvic outlet, in which case pyelotomy is forbidden. The best route of attack for the large stone will perhaps always remain through the nephrolithtomy incision, wherein the kidney is opened on its convex border just a little posterior to Brodel's line. At this point it is said that the kidney structure is the least vascular and offers the best opportunity for incision. This incision, of course, extends through the cortical and medullary substance of the kidney down into the pelvis and may be as long as desirable. In some cases it is necessary to lay the entire kidney well open so as to expose every part of the calyces and pelvis. Of course, if the stone is of secondary origin, that is to say, found in a kidney that is to say carcinomatous, sarcomatous or tubercular, the operation of nephrectomy will have to be considered.

The Role of the Thymus in Certain Pathological Conditions.

According to Lucien and Parisot many mishaps are laid to the hypertrophy of the thymus because we have not a sufficient knowledge of the normal size of the organ at any given age. The writers believe that, instead of taking on atrophy at a very early age, it continues large up to puberty. If death occurs and a large thymus is found it is laid to the gland, whereas it was, probably, of the natural size for the age of the child. In the second or third year it weighs 25 to 28 grams, whereas it has been thought to weigh, normally, 15 or 20 grams. It continues to grow for some years after this, up to puberty, and then gradually diminishes in size. Removal of the thymus in young animals causes lessened growth of the long bones. Ablation of the thymus in young children may be followed by serious symptoms, hence its total removal is contraindicated.—Gazette des Hopitaux.

Chemical food is a mixture of Phosphoric Acid and Phosphates, the value of which physicians seem to have lost sight of to some extent, in the past few years. The Robinson-Pettet Co., to whose advertisement (on page xvi) we refer our readers, have placed upon the market a much improved form of this compound, "Robinson's Phosphoric Elixir." Its superiority consists in its uniform composition and high degree of palatability.

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VOL. LXII CHARLOTTE, N. C., SEPTEMBER, 1910. No. 3

One of the State's Immediate Needs—Shown by Legislative History.*

By Dr. Chas. O'H. Laughinghouse, Greenville, North Carolina.

There were no enactments pertaining to public health in North Carolina until 1764, when a law was passed placing officials at Fort Johnson for the purpose of administering oaths; before whom masters of ships were compelled to testify as to distempers on board their crafts. In the event of contagious disease, the commander of the infected ship was ordered to cast anchor off Battery Island, where the sick was cared for, and after forty days the commander was permitted to enter his ship, wash the hold with vinegar and smoke it with brimstone.

Barring acts similar to the above, there was no sanitary legislation until February, 1859, when an act was passed providing that the regular association of graduated doctors be incorporated, as the Medical Society of the State of North Carolina,—this act also provided for a Board of Medical Examiners, and was in reality the beginning of medical legislation in this State.

In 1877 the Legislature gave the State Medical Society the power to act as the State Board of Health, and made an appropriation of one hundred dollars which was the first appropriation for sanitation in North Carolina. In 1879 this appropriation was increased to two hundred and fifty dollars and in addition the State furnished the printing and stationery.

In the Code of 1873 you will find the Medical Laws with Amendments from 1859 fully set out. In 1885 the annual appropriation was increased to two thousand dollars. The laws were also amended in 1885, 1893-94, but no further increase in the appropriation is recorded until 1907, when an increase from two thousand to four thousand dollars was made.

In addition to this came the appropriation of fifteen thousand dollars for the State Hospital for Tuberculosis at Montrose, with an annual seven thousand and five hundred dollars for its maintenance.

The Legislature of 1909 gave free diphtheria anti-toxin to the indigent; improved greatly the usefulness of the State Laboratory of Hygiene; passed the Vital Statistics Law, which, by the way, was urged by medical men as far back as 1850; increased the annual appropriation from four to eight thousand dollars, eighty times the original appropriation of 1877, which from a legislative and financial standpoint places State Medicine in North Carolina on a firm foundation.

The above accomplishments have been due almost, if not entirely, to a few medical men. The crusade for the betterment of health conditions was prompted on or about 1872, by Dr. Solomon Sampson Satchwell, who read a paper before this Society which aroused the enthusiasm of the reading public along with many of the ablest men in the profession. Men like Drs. Burke and Richard Haywood and Peter Hines, of Raleigh, Whitehead, of Salisbury, Jones, of Charlotte, Thomas and Wood, of Wilmington, the Duffy's, of New Berne, with C. J. O'Hagan, of Greenville. These men conceived, and by their efforts had enacted into law, the State Board of Health, which was legally ratified in 1877. North Carolina was never rendered a greater service, and the strongest praise cannot express sufficiently the gratitude that is due them by the State.

In 1885, Dr. Thomas F. Wood, of Wilmington, with his confreres, succeeded in securing legislation that greatly enhanced the usefulness of the Board of Health. His personal work, his broad information, his indefatigable energy and glorious medical patriotism, was the developing power of the organization until his death, which came in 1892, at which time Dr. Richard H. Lewis succeeded Dr. Wood as Secretary of the Board.

Profiting by the example, experience and assistance of men like those already mentioned, along with a succession of capable and able co-workers, who have from time to time constituted the Board of Health, Dr. Lewis, as the statute books will show, has laid a foundation wise, broad, deep and enduring on which to build the future of a great sanitary progress.

He is responsible for the foundation of the State Sanitarium for Tuberculosis; for the act separating tubercular prisoners from the other inmates in the penitentiary; but for him we would have had no Laboratory of Hygiene. The Board of Medical Examiners would have been shorn of its power had he not by sagacity, strategy, wisdom, work and watchfulness prevented its destruction. While the Act for Free Distribution of Diphtheria Anti-toxin was not

*Read before the recent meeting of the North Carolina Medical Society.

suggested by him, he perfected the bill and had the legislature enact it.

North Carolina is the first of seven classes, according to a committee on water legislation, that made its report at the Buffalo meeting of the American Medical Association in 1902. Dr. Lewis through work along this line earned North Carolina this position besides protecting her cities and towns from raw sewage in streams used for drinking purposes. He is indeed "The most level headed man in North Carolina" as Ex-President Geo. T. Winston said of him about a month ago. His head is no more on the level than his heart, and as Chairman of the Section on State Medicine and Medical Jurisprudence, I want it put on record here and now that the people of North Carolina with the members of this society most especially do give him sincere and hearty thanks for his long, arduous, and productive labors.

Public health is the foundation for the happiness of a people, and the strongest productive power of a State. Business men, philanthropists, educators and statesmen realize it, and by their vote give laws and money as propaganda for its development.

The success of public health in North Carolina depends upon its being fixed in the minds and lives of the people, eighty-two per cent. of which are rural, with only eighteen per cent. living in the cities and towns. We may have laws with appropriations, and a Board of Health that is second to none, but unless preventive medicine can be impressed as a practical necessity upon the mind and the life of the private citizen as an individual, all that money and laws and a Board of Health can do will be as "sounding brass and tinkling cymbals."

Next to a well informed and a perfectly unified profession, laboring together in harmony, each giving freely of whatever he may have for the promulgation of sanitation,—comes the office of County Superintendent of Health. We as a profession are paying too little attention to filling this position with competent men. This neglect on our part is prostituting our guardianship and is robbing the State of that which rightfully belongs to her, as well as that which she has paid for. In many instances the sanitary committees and county boards of commissioners have elected men to this responsible position without thought of proficiency. We should see to it that this office is filled by physicians who have a broadness of vision, a precaution, a power of execution, and a familiarity with local conditions, which is possessed by men of experience, intelligence and conscience.

To disseminate properly the teachings of the Board of Health, we must have superintendents who have seen service, who have labored long enough in their respective counties not only to see and know, but to feel the need of sanitation right here at home. Men who have earned a position with the public and the profession which demands and commands for their utterances and undertakings the utmost respect and confidence. Men who have the ability, the tact, the energy, and above all the character to enlist the efforts, not only of physicians, but preachers, teachers, women's betterment associations, fraternal orders and politicians as well.

This society is the vis-a-tergo of practical sanitary progress in North Carolina, hence it is incumbent upon it to spread abroad in the land, emphatically and with decision, that competent superintendents of health must be had. Let it be voiced by the State through the Board of Health, the County Sanitary Committees and Commissioners, that the office of Superintendent of Health is of such importance that practical local sanitation is hindered and the State is not safe until the position is filled in every county by men of quality and a sense of duty that guarantees capable and satisfactory service.

Though it is the office of service rather than emoluments, let the salary be made sufficient for competent men to serve without personal sacrifice. Make county commissioners realize that a health officer who prevents an epidemic of small-pox or typhoid fever has accomplished more than a hundred doctors treating individuals after the epidemic is beyond control. Let it be understood that the position of County Superintendent of Health is the highest medical honor a county can bestow. Place about it a dignity, make it a position of character.

The public is not only willing but is clamoring collectively and individually for a greater progress and proficiency in local sanitation. We should and we must accede to and superintend the fulfillment of this demand.

We have the laws, the money, the press, public opinion and a most capable Board of Health, but to put sanitation into the individual life of the State's citizenship we must place the position of county superintendent of health on a higher plane by filling it with the State's most capable men, and by giving to these men our conscientious and enthusiastic aid,—this is our supreme public duty as a society and as individuals. The physician who neglects it is untrue to himself, to his clientele and reflects upon his calling.

Discussions of Dr. Laughinghouse's paper read before the North Carolina Medical Society at its Wrightsville meeting in June, 1910.

Dr. W. S. Rankin:

Mr. President and Members of the North Carolina Medical Society:—It is a pleasure to listen to a paper like that just read by Dr. Laughinghouse.

I want to say in a general way, that I endorse everything most heartily that Dr. Laughinghouse has said, and I want to discuss particularly the phase of this question which I have embodied in my report, as required by law for the conjoint session of the Board of Health and of the Society, and if you will pardon me I will read what I have said in regard to the local health officers. I think it touches the cause of the local health administration, and it is a cause which the Society, in my opinion, must consider and must solve.

A national authority said to me in March of this year, that the weakest point in the public health work in this State was the county and municipal health administration. I agree with his diagnosis. I respectfully ask your attention to what seems to me to be one of the principal causes of weak local health government.

In many counties and towns (note that I did not say in all) the position of county superintendent of health and municipal health officer goes to the man who will carry, not always discharge, the responsibilities of health officer for the smallest salary. There is in this way injected into the profession a species of bidding against each other,—a practice under any other circumstances considered very unethical. It is certainly unbecoming to the dignity of our profession and tends towards professional disorganization and deterioration. And on the other hand, the cheapest doctor is not always the best man for the local public health interests; as a rule he is just the reverse. This effort to secure the cheapest man as health officer has reduced the compensation of the local health officer so low that in many places only a few will accept the office, and a large number of those accepting complain, when called upon to discharge some official obligation, that their salary will not justify their going to the necessary trouble. Cheap health officers are hurtful to both parties to the contract, to the profession and to the public.

Now if it is both wise and proper for the profession to say that a member shall be in good standing only so long as he recognizes the right of the majority to fix fees, for both private and contract parties, then it would seem to my humble judgment that it would be both wise and proper for the profession to say that its members should be in good and regular standing only when they observe rules laid down by the profession regulating the fee paid by the public for service rendered. The salary or fee paid by a county or town to its health officer of course would be graduated on the amount of taxable property and the number of people living within the health officer's jurisdiction.

That you may have some idea of the compensation of health officers, I must submit the following figures as representing conditions in fifty-five counties from which I have recently obtained figures. The average county spends per capita on public health .0129; the maximum spent by any county on health is .09 by Durham county; the minimum spent by any county on health is .0082 by Alleghany; the average spent by both State and county per capita is .0254.

Estimated on a basis of taxable property, instead of per capita, the maximum spent by any county is .035 per $100 taxable property by Pamlico; the minimum on the same basis .001 by three counties—Robeson, Burke and Alleghany; the average per county spent for public health per $100 taxable property is .01. As the State spends .0025 per $100 taxable property, the most spent in any county on a basis of taxable property, State and county combined, would be .0375 by Pamlico county; the least spent on the same basis by any county would be .0095 by Robeson, Burke and Alleghany; the average spent on the same basis would be .0125.

In my opinion I think the matter of the salary of county superintendents of public health is the most important one of the causes for poor health work in the towns and counties, and I think the profession has just as much right to regulate the fees paid by the public to the health officers, as they have the right to regulate the fees paid by the private individual or a corporation. I think the same principle applies to one as to the other and I think that is the whole point of Dr. Laughinghouse's paper, because it is a fact. I think it is the principle cause and I think the Society ought to take charge of it.

Dr. Rankin:

Public sentiment makes laws and enforces laws. Now it is a teacher's office. The State Board of Health is doing this: It gets out a monthly bulletin and that monthly bulletin goes to any member we can find on the mailing list, and if anybody will send us names, nothing will give us greater pleasure than to send this literature to those who need it. At present the bulletin goes to medical men, the lawyers and

the preachers in the State; goes to four thousand school teachers. It is hard to keep up with the school teachers, because they are a moving population. In other words, it goes to the influential people and to all others we can get on the mailing list. The question is just now receiving a good deal of attention from public school teachers, and I have heard through Superintendent Joyner that this year there has been some work done through pamphlets in the public schools, and there will be more done next year.

This public education is being pushed as far as $6,000 will possibly go.

Dr. Charles W. Stiles, Marine Hospital Service:

Dr. Laughinghouse has brought up a matter which, from my point of view, is one of the most important factors in the death rate of the South today, because it touches rural and village sanitation.

In the last few years I have come into very close contact with a number of local health officers, and I have come across some very remarkable things. There is a certain health officer in this State, who is at present in this room. He became very active a while ago, and attempted to make his towns people clean up, but within a few weeks, one hundred and twenty property owners had signed a circular asking for his removal.

The public health situation is a very complicated one, because the health officer who does not give up his entire time to public health matters, and who does not happen to be a millionaire, has to earn his bread and butter by practice, and it is a peculiarity with the American people that when he tells us to clean up we think he is interfering with our personal liberty. He is an unpopular man, and I do not blame a man for not wanting to be a local health officer.

We must take hold of this local health officer problem and put those men on a sufficient salary, so that they are absolutely independent of all family or local influence. It will be difficult to induce the country to clean up until we do that.

There is, at the present moment, a little change in the sentiment showing how some things are going.

A short time ago I was called up on Long Distance telephone and asked to visit a certain town. The mayor and the health officer combined were trying to institute certain reforms, which the people would not adopt, so a public meeting was called. One physician discussed malaria, and I was requested to tell the people something about their sanitary conditions. The mayor called a meeting of the town council following the public meeting and his measures were adopted.

I think there should be more control given to the State Board of Health over the local boards of health, so that the State would have authority to step in any county, clean up the county and present the bill to the county, in case the county did not do the work itself. We would have to do that only in one or two counties, because the bill would be rather high, and the other counties would prefer to do the cleaning up themselves.

Dr. Wm. Allan, of Charlotte:

It seems to me that one of the present evils of the local health problem is the fact that in many counties and towns the local health officer is also the physician to the poor, and so long as he has both duties to perform, the public health will never be properly attended to in that community.

Dr. Ben K. Hays, Oxford:

I move that Dr. Laughinghouse's paper be sent to the daily papers of the State for publication, and that copies for this purpose be made at the expense of the Society.

Motion carried.

Dr. H. D. Stewart, Monroe:

Mr. President, if you will allow me, I should like to say just a few words in discussion of Dr. Laughinghouse's paper.

We have thus far in the discussion overlooked what appears to my mind to be the most important and the most necessary thing of all in the making and enforcement of public health laws and the promotion of public health in other ways.

We have found ignorance to be the great stumbling block in Union county,—and blissful, satisfied ignorance is the barrier in every other county as well.

We need the distribution of health literature over this State, in every nook and corner. There are people in my county who would rather die and go to the devil than to be vaccinated,—that is, they have this preference before they have gotten that irrevocable start on the journey. And there are plenty of people there who would rather die and go to hell than to be quaranted for three weeks.

This is the land of liberty, and there is too much liberty. There is where the trouble comes. Liberty to go where he pleases, do as he pleases, and when he pleases is absolutely the greatest barrier to public health promotion. And as the human being approaches the dumb brute in his uses and abuses of the spirit of liberty, to just the same extent does he become like the brute in his habits and his life.

Subjection to authority and mastery over one's self are the things that make and mark the perfect man and the ideal citizen.

We shall have to have compulsory education, and we shall have to have a distribution of literature into the dark, benighted out-of-the-way places.

Almost the first thought of the Pilgrim Fathers when they alighted at Plymouth, Massachusetts, was how best to educate their children and to protect themselves from pestilential diseases.

Education and public health and public wealth go hand in hand.

A complete, well rounded education is a virtue. Ignorance is almost a vice. Self-preferred ignorance is altogether a vice.

Why do the New England States, and especially Massachusetts, lead the United States in wealth and in health? Because for many years they have had a superior educational system. They have had strict health laws well enforced.

Why does Kansas lead the West in farming? Is it altogether on account of natural soil advantages? No, she has compulsory education, compulsory health law in abundance. Brain and machinery, instead of brawn and brute force are farming. The Kansas farmer lives in his ten thousand dollar residence and ships corn and flour and oats to the Southern farmer, while the Southern farmer lives in a one thousand dollar residence and buys his supplies from the Kansas farmer. See?

Personal and individual liberty must be made subservient to the public health and to the public good.

Heretofore the consumptive, the syphilitic, the gonorrhoeic have been allowed to go where they pleased, mingle promiscuously and sow their disease germs broadcast. This must be stopped before we can control or eradicate these diseases.

It requires four generations to breed a man—a perfect man that is, provided we begin now.

The Divine law that the sins of the forefathers shall be visited to the fourth generation proves itself potently in disease taints, in traits of character and in various other inherited tendencies.

It is a Herculean task for any individual to be anybody or to become a citizen of strong character and usefulness if his daddy and mammy before him were nobody. The chances are against him. If his daddy or his maternal uncles were rogues or rascals or drunkards or whoremongers, he has the fight of his life to keep these things down in his own life, even though he may never have known these ancestors.

Public sentiment controls everything. It controls the county commissioners, it controls the public officials and everything else. Unless this public sentiment is educated, you are going to have a drawback all these years. It is like building a house and starting with the steeple; if you begin with the steeple and neglect the foundation, the house will fall.

The doctors are the most powerful body of men in the State, because they have the opportunity to appeal to human beings under the circumstances and at times when they are the easiest to reach.

The medical profession can wield a greater influence than the pulpit, the press or the politician.

It is ours to educate public sentiment and to shape and crystalize it along right lines.

There are some people so green the cows would eat them if you didn't keep the cows chalned. You have to teach and teach such people as this. They say you can take an ox to water but you can't make him drink. But you can wet him and wet him so that after a while he will absorb enough water to give him a taste for the life-giving fluid. Just keep on spraying and pouring it on, and after a while the people will learn enough by absorption to give them a taste for the Pierian spring. You can take the boy to school and tie him under the tutelage of a strong teacher, and in view of black-boards, charts, pictures and various kindergarten lessons, and he is bound to learn something from association. The boy may not have sense enough to do anything more than bat his eyes at the teacher, but if the teacher has brains and something to impart to the boy, a few things of knowledge will penetrate his head by striking it often enough.

Theory sounds pretty until you begin to reduce it to practice, and there is where your stumbling block comes.

The hardest thing in the world to deal with is an ignorant man, especially if he is an ignorant fool. If a man has some natural sense to start on you can kindly handle him, but if he is a fool and an ignoramus combined, he is the most ungetatable thing in the world. There is absolutely no hope for him.

Natural ability or inherited sense is half of a man's sense, and education is the other half. If he hasn't these he has not a bit of sense in the world, and you may as well pass on to the next neighbor.

I just want to make this request: That the State Board of Health and the Secretary of the State Board of Health turn loose all the literature through my county that they possibly can, in every nook and corner.

Since the Grandfather Clause went into effect a good many of our people can read and write, and since we have so many schools and rural graded schools supported by local taxation, many more boys and

girls can read and write; and if you send this literature to them, a good many of them will read it through curiosity, if for nothing else, because it will be the first literature they have seen lately.

After a few years of education we may get to where we can clean up and sweep away the filth, but you cannot get them to where they will listen to you as long as they are as ignorant as jay-birds.

I think this compulsory education is the first thing, and then after that, legal compulsion. Take him into the court. It is hard to consign to eternal damnation the heathen who has not heard of the Christ. It is a hard thing to take a man into court and to prosecute him for violating public health laws, who is in darkest ignorance and does not know any better at all. But after he gets literature and the opportunity to learn these things, then the responsibility is upon him and not upon the health officers; then you can prosecute him all you please, if he knows better, and the responsibility is upon the citizen.

We are responsible for the effort, not for the result, in these matters of education and public health.

I am going to send the Secretary of the State Board of Health the name of every teacher and every preacher in Union county, and the names of about two thousand citizens, and I sincerely trust that he will send them plenty of health literature.

Dr. N. P. Coppedge:

As to the health officers in smaller towns: The appointment of health officers ought to be free from politics. If you can persuade the people to attach enough salary to the office, so that it will be a job that men want, it will go to the man with the most pull, and not to the man of the most competence. If we will take some action to secure such legislation that the county superintendent of health shall be appointed by the county medical society of that county, I think we would thereby be more apt to get a competent man.

I offer this resolution: That this Society favor such change in the laws of North Carolina that the county superintendent of health shall be appointed by the county medical society, for the county in which he is to serve.

Dr. J. W. Halford, Chalybeate Springs:

I wish to say that I think we should take this thing out of the hands of the county commissioners entirely. I attempted to present that phase of the matter at a recent meeting of this society. My suggestion was that the county society nominate and the Governor appoint, as we at present select our State Board of Health. I think it would be a very fortunate thing, if the appointment of this very important officer could be removed from the sphere of petty politics. We frequently see men elevated to the office of county commissioner that we, at least, think incompetent for the routine business of the county. What, then, of making such people the guardians of the public health? The office should be one that would command the respect of everybody, and, as pointed out by Dr. Laughinghouse, the salary should be sufficient in order that a competent man would not have to make a personal sacrifice to accept it.

I think it better to remove the appointment of this important officer from the county commissioners.

Dr. Richard H. Lewis:

The law was amended a good many years ago, on the ground that the men who paid the salaries ought to have the right to elect the officers. Now, as the board of county commissioners have to pay the salaries, you can see the difficulty. In order to meet that difficulty the county sanitary committee was suggested, which consists of the board of county commissioners, plus two physicians, members of the county medical society. The idea was that these two physicians would so influence the board of county commissioners as to bring about the selection of a proper health officer, and I think the way to get attention is for the county medical society to recommend to the county sanitary committee a man that is competent. If they put in office an incompetent man they are responsible for it.

I think Dr. Laughinghouse's suggestion is the proper one.

Dr. M. F. Fox, Guilford College:

I would say in my county there are two physicians who are elected by the county or the sanitary committee, and by the chairman of the county commissioners, so that the two doctors on the county commissioners can appoint or elect the county superintendent of health. The doctors thereby have the majority.

It seems to me that that is about the best solution, because the doctors there have the ascendancy in the appointment of the county superintendent of health.

Dr. Ferrall:

Mr. President: My impression of the manner in which the county superintendents of health are elected is as follows: The county commissioners, usually three in number, together with two physicians, constitute the county sanitary committee. One of the physicians is appointed by the chairman of the board of county commissioners and the other one by the mayor of the county town.

It seems to me in this connection that we could effect a compromise which would

allow the county medical societies, in counties where there are four or more regular meetings of the society during the year, to name the two physicians who are members of the county sanitary committee. As it now stands, if the chairman of the board of county commissioners should appoint a physician whose vote he could influence he would virtually have two votes on any measure which would arise. Very often the mayor of the town is not particularly competent to select the physician best qualified to be a member of the county sanitary committee. Since the county commissioners have to defray the expense they would be satisfied, since they would be in the majority. However, two strong physicians associated with them would probably be able to direct the action of the board in the proper direction. I therefore believe it would be well for us to pass a resolution, asking that the medical society of the county be allowed the privilege of naming the two physicians upon the county sanitary committee.

Dr. Mann:

Mr. President: I am in favor of this movement.

Motion made by Dr. Coppedge carried.

Dr. Lewis:

I wish to say in connection with the discussion just had, that the suggestion of Dr. Ferrall is the most practical one that has yet been made.

DR. LAUGHINGHOUSE CLOSES.

Mr. Chairman and Gentlemen:—I was in hopes that this paper would bring about a more general discussion than it has, because I feel that practical sanitary progress in North Carolina depends, to a great degree, upon the suggestions laid down therein.

I am very much impressed with the figures that Dr. Rankin has mentioned, and if you will bear with me a minute, I will read you a few figures procured by Mr. Aaron Prussian and published in the World's Work:

"These figures show what we used to spend, and what we are now spending collectively for health purposes. Not a cent seems to have been thus expended either by the Federal Government or by the several States until we are well advanced in the Nineteenth Century. The large cities did a little better, but not much. And in those primitive days street cleaning, when undertaken at all, had to be done by the health authorities, as is still the case in such an ultra-modern city as Pittsburg. From its incorporation in 1822 and up to 1879, Boston devoted about five per cent. of its total expenditures to health purposes. Since then the sums on health have increased three hundred and forty-seven per cent., and other expenditures only one hundred and seventy-two per cent. In 1879 Boston gave three hundred and twenty-three thousand dollars to public hygiene; in 1909 the city devoted nearly $1,500,000 to this same purpose.

The Massachusetts State Board of Health —the first institution of its kind in this country—spent not quite four thousand dollars in 1871, a little more than eighteen thousand dollars in 1881 and nearly one hundred and thirty-eight thousand dollars last year. From 1885 to 1904, the State of Pennsylvania never gave more than $6,500 annually to public health. For the two years of 1905 06 the appropriation rose suddenly to $368,000. During 1907-08 not less than $2,100,000 was expended on the protection and promotion of the people's health and the appropriation for the pending two years runs to $3,000,000. New York has increased its health expenditures as a commonwealth from $15,000 in 1880 to $150,000 in 1908. In these sums, no money spent under the head of "Public Charities" —such as the maintenance and erection of hospitals and asylums—is included.

Illinois has just granted its State Board of Health $46,000 for the sole purpose of distributing free anti-diphtheritic serum throughout the State. In Ohio the State appropriation for health has risen from $5,000 in 1886 to $40,000 this year, and the same story may be told of all but a very few States in the Union. The first Federal health appropriation was for $259,000 in 1850 and went to the establishment of the Marine Hospital. Last year the Federal Government set aside $6,334,000 for the public health service, for life saving and for food inspection.

The special report on cities with a population of more than 30,000 people, issued by the Census Bureau last year, shows that the 148 cities of that size spent nearly $140,000,000 under the head of health conservation and sanitation during the five year period of 1902-06. This sum was exclusive of the $95,000,000 spent in the same time for charities and corrections, a large percentage of which went to the care and cure of the sick in hospitals and other public institutions. During those five years the cities included in the report devoted an average of 9.7 per cent. of their total expenditures to public health in the modern preventive spirit, and 6.3 per cent. more on charities and corrections. This means that they must have given not less than one-eighth of all their appropriations to the cure and prevention of disease.

The percentage varies considerably in different cities, however. There are still fair sized communities to be found, where

next to nothing is paid out of the public treasury to assist the individual to keep himself well. As a rule the big cities are compelled to be generous, though many small and middle-sized municipalities surpass them. Pittsburg spent five million in building a modern filtration plant. Chicago is contemplating the expenditure of something like six million dollars to keep the sewage of Calumet River out of Lake Michigan. New York and Boston each spend about 11 per cent. of all their money for public health; Chicago nine per cent. and Milwaukee fifteen per cent. But Jacksonville, Florida, devotes practically one-fourth, and Savannah, Ga., one-fifth of their total expenditures to public health, while the other important Southern cities rarely apply less than 12 per cent. to the same purpose, most of it for sanitation, which is a matter of even more moment in the South than in the North. In that short period of five years, too, the aggregative preventive health expenditures of these 148 cities have increased 40 per cent., or from $23,000,000 in 1902 to $32,000,000 in 1906, while their total outlay has increased less than 21 per cent., and their expenditures for charities and corrections only 19 per cent.

Just to compare with the figures of Dr. Rankin. The comparison will show that if we are to be judged by outsiders, from the comparison of these figures alone, they will have good reason to expect us clothed like Adam and Eve,—in fig-leaves.

The suggestion to divide the duties of county superintendent of health into a department of sanitation and a department of pauper practice, seems to me a very necessary thing to do. As it is now, the county superintendent is paid a paltry sum, and is expected to give medical attention to the inmates of the county home, the county jail, and the county road gang.

The paupers and criminals are of such importance that they must be cared for. They must receive collectively and individually the attention of the superintendent of health, which is right and proper; but is it not equally right and proper that the county superintendent should look after the collective conservation of the health of the earnest, patriotic, working, self-sustaining, law-abiding citizens, with at least the same zeal and proficiency that is given the paupers and criminals? The constructive, law-abiding citizen, trying to better his own, his neighbor's, and his State's condition, has little if any attention given his sanitary safety. I do not mean to reflect upon the State Board of Health,—for there is not in the Union a board more competent, or one more anxious to do all, and even more than is expected of it. As it is in reality, the Board of Health is little more than a Long Distance Advisory Board; but when the office of county superintendent of health is divided into a department for the care of paupers and criminals, and a department devoted to the grand undertaking of keeping the public well, and the office is filled with a man that can enlist the active interest of the county sanitary committee, county board of commissioners, the public and the county medical society, then the State Board of Health will be in possession of local organizations through which can be accomplished great good.

It seems to me that any change in the present laws relative to the election of county superintencents of health is unnecessary. We could manage the problem more successfully by quietly getting the county societies to take a hand in it, without any change in the laws. It could be done in this way: Have the county medical society to decide upon the two physicians who are to be placed on the sanitary board, and let their society recommend the appointment officially. There is always one or more members of the county society who can influence the mayor and one or more members of the county board of commissioners. In this way the physicians can elect the county superintendents of health, and still keep the responsibility of it on the commissioners and sanitary committee. Besides, there are some counties that do not have county medical societies and some that have county societies in name only.

It is better to have the commissioners to appoint the county superintendents, because they have the sanitary work to finance for the county and they are apt to demand a monthly report, and put the work on a business basis. We must have a connecting link between the superintendents of health and the people. The commissioners represent the people.

The Submucous Resection of the Nasal Septum.*

By E. Reid Russell, M.D., Asheville, N. C.

By resection we mean the cutting out of the deviation and no more. An operation that requires neatness and painstaking skill, thoroughness rather than quickness. The object is to gently dissect the muco-perichondrium from the adherent places, avoiding perforations.

In the young the mucous membrane is not so easily dissected, because, as Freer tells us, the attachment to the underlying perichondrium is freely movable on it, and here dissection is difficult, for we may re-

*Read before the recent meeting of the North Carolina Medical Society at Wrightsville, N. C.

move the mucous membrane leaving the perichondrium to be removed with the cartilage. The perichondrial layer is essential to the new septum.

Indications and Contraindications.

Since the perfection of this operation it is seldom, if ever, necessary to sacrifice the mucous membrane, as all corrections of the septum should be done submucously. In those cases where the septum is too thick, or any other deformity, the operation is indicated. The results are permanent, at same time the mucosa and submucosa are preserved intact. Some operators have mentioned a slight sinking in of the nose, but that was due to removing too much of the cartilage beneath it, or contraction from specific origin.

The operation is done under local anesthesia and is free from pain. The disagreeable splint is eliminated in this operation, a great improvement over the older operations, where these splints were worn for weeks.

The results have been good in all my cases. The nasal obstruction was relieved and in only one case was it necessary to remove the middle turbinate, and in no case was the cautery, etc., used to reduce the inferior turbinate. Headaches about the eyes, temple and frontal regions, nasal catarrh, and ear troubles depending upon obstruction of the Eustachian tube were all more or less cured or relieved.

Contraindications.

The contraindications are few; active syphilis and acute inflammatory conditions of the nose, such as acute rhinitis, are about all.

In preparing the patient for the submucous operation I believe in asepsis rather than antisepsis. Keep the unclean things out of the nose. Strong antiseptics are irritating to the nose and more or less harmful.

I usually give a hypodermic of morphia and atropin half an hour before the operation, as this quiets the patient and not so much cocaine is necessary.

I prefer to have the patient recline on an operating table with the head slightly elevated.

Method of Operation.

Freer's method of local anesthesia was used. Each side of the septum is swabbed with 1-1000 solution of adrenalin, followed in two or three minutes by application of pure powdered cocaine. An applicator with pledget of cotton is moistened in the adrenalin solution, then dipped into the pulverized cocaine and rubbed into the mucous membrane. This is repeated three or four times, at intervals of five minutes.

There is a difference of opinion in the choice of the location for the incision in the mucosa. A curved incision just in front of the septal deviation through the convex mucous membrane and perichondrium down to the cartilage, from the floor upward and backward for about one inch, was made in my cases.

I used Myles submucous knife for the incision. The muco-perichondrium is now carefully dissected up with a semi-sharp elevator, the one devised by Abraham I find very useful.

Where there is an acute angular deflection it is very difficult to elevate the membrane. Here I find the method of removing the cartilage from above facilitates matters very much.

The cartilage is now gone through with a hoe knife, care being taken not to injure the opposite membrane. The muco-perichondrium is elevated in the same way on the other side; having both sides over the deflection free, the cartilage is removed with Ballinger's swivel knife, and with the use of Hurd's forceps the bony deflection is removed.

It is best to remove all the deflected bone as well as cartilage.

The removal of the vomer or ridge of the septum is done by first making two parallel incisions through the periosteum along the crest of the vomer, a small scalpel is introduced into the muco-perichondrial pouch for this purpose. After the elevation of the periosteum Hurd's bone cutting forceps or a small strong rongeur forceps are used to remove the bone. Ballinger's V-shaped goug is also useful at this stage of the operation.

After a thorough inspection to see that all deviations have been corrected, the submucous speculum is removed and the two septal membranes are brought together. If they are in the median line the operation is now complete.

Both nostrils are packed according to Freer's method, that is narrow strips of gauze impregnated with subnitrate of bismuth powder. The removal of the dressing is done in twenty-four to thirty-six hours after the operation.

Usually I do not remove all the dressing at once, but leave a few pieces of gauze on the floor of the nose for a day longer as hemorrhage at this point is more likely to occur.

The After-Treatment.

The nasal chambers are irrigated with normal salt solution or a mild solution of permanganate of potash as warm as the patient will stand.

The mucous membrane is smeared with a sterile vaseline two or three times a day after the irrigation.

The first night there is more or less oozing of blood stained serum that may alarm the patient if he is not told in advance about it. The swelling subsides in two or three days or may last a few days longer. As to the question of regeneration of the cartilage and bone, authors differ. Freer claims that the cartilage re-forms, others that the cartilage is replaced by a dense fibrous tissue. This makes little difference, as we have a straight, thin septum as strong as ever.

Legal Building.

Typhoid Fever a Surgical Disease.*

By H. S. Lott, M.D., Winston, N. C.

The greatest strides of our profession today are along the lines of early and accurate diagnosis. We are not "cure-alls," we do not claim to be, we do not wish to be, for we know that such an ultimatum is impossible: but we do know the findings of recent and real pathology; painting for us a vivid, living picture: first, of local conditions; second, of surrounding structures; and third, and most important of all, of its bearing on the economy at large, with possible tax to the vitality of the patient.

One by one, conditions long shrouded in mystery, because of their obscure pathology, by the lights of today are relegated to the realm of surgery. Notably, appendicitis, (the "perityphilitis" of the older surgeons) gall stones, renal colic, gastric ulcer, and many more, in which local, and causative, foci have been established. Now, in typhoid fever, a diagnosis once made, what local conditions confront us? Inflammation of Peyer's patches, and of the solitary glands; this inflammation meaning its progress in three stages, of congestion, infiltration, and resolution, either with or without suppuration or sloughing: thus establishing again the three foci in one, of pain, of infection, and of possible disaster; through either sloughing with hæmorrhage, or perforation, with peritonitis; that should appeal to the surgical conscience; and furthermore, meaning not one, but many weak points, an accident to any of which might be fatal.

For emphasis, let us for a moment consider these glands and their condition in typhoid fever a little more carefully. Picture a gland in any other portion of the body; congested, infiltrated and suppurating, but imbedded in muscular structures, with an abundance of cellular tissue surroundings; if it slough, and even if it rupture, no fatal hæmorrhage ensues, and no cavity is flooded with filth. How very different are the local conditions and surroundings of Peyer's patches, and the solitary glands; and how different is the result of an accident? Imbedded in the very thin wall of a hollow intestine, whose function it is to accommodate to a point of tolerance, and then rid itself of contents; this being favored by inherent vermicular contractions; every one of which must jeopardize the integrity of its wall, when this wall has multiple softened and weakened points; a condition that is inevitable throughout the course of typhoid fever. Punctures may occur at these points, not in ones, or in twos, but in tens, twenties, or thirties, as it has been my privilege to see them; spread out over the abdomen, searched for one by one, and repaired; the wonder being that the vitality of the patient brought her to the operating table at all—with this "pepper-box top" condition of the intestines.

Now, with this picture before us of an assured local lesion, which both favors and invites fatal accident, what course seems best for the welfare of the patient? *It is not all of surgery to cut*, and in saying that this is a surgical disease, I do not mean that all cases demand surgical operation, but that all cases do need the surgical wisdom, and the surgical conscience, which should, in some degree, belong to all practitioners, to guide them safely through a very trying crisis, in which a distinctive lesion is known to exist, and in the course of which we may avoid a fatal accident. Therefore, it seems to me that we should avoid all things that would favor peristalsis; give bland and liquid nourishment, in moderate quantities at stated intervals, and give no hard pills or capsules, with the chance of their making the journey through a flaccid, tortuous tube, studded with many points well fit for perforation; and empty the lower bowel once in forty-eight hours with an enema of normal saline solution, carefully given; thus in a general way pursuing the post-operative care of abdominal cases, and feeling that we have not contributed to an accident that may occur in spite of us.

Of such accidents two may occur during the ulcerated condition of these glands, either one of which may be fatal. The one least likely of such a termination being sloughing of an artery which, in its proximity to the gland, is invaded by the process of ulceration; hæmorrhage pouring out into the intestine, without a perforation of its wall. Indicated by all the symptoms of sudden and extensive hæmorrhage from any source, viz.: shock, with pallor, restlessness and feeble pulse, to which may be added dullness on percussion over the area of bowel filled with blood. This accident, I believe, is best cared for by the "Opium

*Presented at the July meeting of the Forsyth County Medical Society.

Splint," well applied; full doses being given until the bowel is perfectly quiet, with ice applied to the abdomen, and this condition being maintained for a number of days, until we feel that the vessel has had the time for a closure. The other accident, and the one most likely to be fatal, is from perforation of the bowel wall. This may be accompanied by hæmorrhage, or there may be only an outpouring of filth into the cavity of the peritoneum. Such perforations occur, as a rule, not earlier than the second, or maybe the third week, and may continue to occur for an indefinite period.

With a group of symptoms that are almost classic, we should always recognize this accident—pain, usually sudden, violent and of progressive intensity; immediate indication of shock, with pallor, anxious countenance, and quick and feeble pulse; followed very soon, as the cavity becomes invaded with filth, and the peritoneum infected by its virulence; by distension, with quickened breathing, and an elevated percussion note, especially on a line with, and above the umbilicus.

Now, that this accident will be fatal, there is very little doubt; and, if we will fix a mental picture of existing conditions, we must confess that nothing is to be hoped from an expectant course of treatment. Delay only enlarges the puncture, and increases the quantity of liquid filth that is invading the peritoneal cavity; every moment only lessening the chances of surgical salvation. It is a matter of "fighting fire," and a time at which we should act, and act promptly, before the flames are beyond our control. A little ether, with a median incision, add very little to shock; as a matter of fact, they act more often as a stimulant. Nor is a prolonged and extensive surgical procedure best in all cases. If the vital forces will permit of it, search carefully for perforations, freshen their edges, and close them with a simple purse-string suture of fine silk; follow this by flushing the cavity with an abundance of normal saline solution, placing a few comfortable gauze wicks, brought out at the lower angle of the incision for drainage, and making rapid closure, to this point, with silk-worm gut, through and through. The filth is better out than in, and if the patient seems to be "in extremis" a simple, speedy toilet, and a free incision in the flank, with an ample gauze wick for drainage, will certainly do no harm, and gives the one chance for help.

Reply to Discussion.

In this group of symptoms, temperature was omitted, for emphasis. By this emphasis, I wish to make two points clear; one being, that in spite of its importance, and its prominence, a diagnosis of this accident should be made without it; and the other, that I firmly believe that the importance of temperature, throughout the course of typhoid fever, is very much over-rated, and that many patients are killed by efforts directed to the reduction of temperature, instead of all efforts being directed toward the preservation of vitality. In addition to the old, and classic, group of symptoms, the one brought out in the discussion of a *congestion of the conjunctiva*, as being observed to always precede a hæmorrhage, is a most valuable one, and I thank you for adding this one to the group.

In the matter of drainage, the main point is to drain. The method suggested by Dr. Lockett, of localizing the point of drainage, making it only one, and of protecting the gauze with rubber tissue, is excellent, and is especially suited to the typhoid cases. Properly distributed, and comfortably placed, gauze wicks have never given me any cause for regret. If put in clean, and kept clean throughout the after-care of the case, they do not cause adhesions, but they do prevent them. The matter of after-dressings is a very important one, and is not given the prominence in the teaching of today to which it is entitled.

As to a diversity of opinions by prominent operators, in regard to drainage, I will say that during my various, and always profitable, visits to the surgical clinics of the educational centers, I have found two groups of men, both intensely interesting, and also intensely valuable, both to suffering humanity, and to the profession at large. In one group are men who are filled with restlessness and discontent, as well as filled with zeal. In their work, and in the doing of it, changes are constantly made; no *mode* thus reaching perfection. These men grasp at each new suggestion, from whatever source it comes, and use it, for a day, to be cast aside, maybe, for another on the next. This most excellent means of experimentation being not so good, for either the patient or the audience of that day.

In another group are men who are in all main points ever the same. Cleaving close to fixed lines of Surgical Religion. They live and work and fight (if you please) for fixed principles, which they have proven best, and proven true. Both in personal contact, and in their work, the principles, and the teaching, are practically the same, and while exceptions must, and will occur, as they have often come to me, when the temptation to leave the proven track was very great indeed; these only prove the rule, as well as the courage of its advocate.

308 Masonic Temple.

The Therapeutic Uses of Turpentine.

By John Hey Williams, M.D., Asheville, N. C.

For some weeks I have been hesitating as to choice of topics for my paper to present you this evening, having been somewhat uncertain as to the particular line I should be engaged in at this time of the year. My friends have heretofore kindly posted me as to the several seasons of my many specialties. But owing to their negligence I have had to rely upon myself somewhat. Being a general specialist, I am sometimes in doubt as to dates. However, the coming of the hot weather with the usual list of digestive and other bowel troubles reminds me that it is about time to open up as a specialist in general and internal medicine.

A certain great city is celebrated for the liquid that has made it famous, but our grand old State has long been famed in song and story for one of its products and its derivative congeners. A long time ago I made a statement before this body that turpentine was a stimulant. My practical friend, Dr. Fletcher, asked why I did not make a more personal use of it in view of my supposed habits. I answered by saying that there were others of the Narco-cerebral type and more suited to my personal taste, especially as there were no pathological conditions present, and that turpentine had its drawbacks.

But to speak in a more serious vein, I shall address you upon the medical and surgical uses of one of the homely remedies that deserve to be better known to the younger and coming brothers of our profession. The tendency of late years is to teach so much of laboratory methods and so much of the methods of scientific precision in diagnosis that the real aim of all this preliminary work is apt to be slighted. The real thing after all is to get the information that will direct us in our choice of the therapeutis remedy that will most certainly and speedily bring relief to the sick and suffering patient. It is much to be regretted that the ready made and highly vaunted remedies that are poured forth in a steady stream from our very "ethical" manufactories and pharmaceutical houses offers such an apparently easy solution of the matter. So much so, indeed, that our younger men are apt to be swamped in an embarrassment of riches. It is too easy to be content with a precise knowledge of the pathological condition present in our patient and then trust to the ready-to-hand preparations of our pharmacal laboratories, that are ready to take the treatment in hand after we have laboriously searched out the seat of the difficulty.

Possibly you may think that I am old-fashioned when I recommend a new and even renewed study of the old U. S. Dispensatory from Absinthum to Zingiber. The experience and combined wisdom of our fathers are gathered there, and there is nothing ephemeral in its teachings. The most of the subjects of which it treats had been household remedies long before scientific investigation had passed upon their virtues and set the seal of approbation upon their usage. They were not all "made in Germany," but the whole known world has been ransacked and through the materia medica its treasures presented to us. It remains for us to cull its best and simplest.

Among the remedies that have long enjoyed the confidence of the laity as well as the profession for even hundreds of years is the subject of my address tonight, The Therapeutic Uses of Turpentine.

The earliest reference that I have at my command as to its usages is in a little volume that was printed in 1707, over two hundred years ago. The first edition was edited by Salmon in 1676. A large amount of space is taken up in treating of various substances known as turpentine oil and spirits. The remedy known to us medicinally is the distilled spirit or volatile oil. I doubt that many of you would know the crude turpentine as brought from the tree to the still house. It is the sap or juice of the various species of the Pinus, notably the Pinus Palustrus, the long leafed or yellow pine, common to the coast region of Virginia, North and South Carolina, Georgia and Florida. Most notably, however, in North Carolina. So much so as to mark our grand old State as famous for its tar, pitch and turpentine. The growing scarcity of the white pine along our great lakes and the Canadian border has directed the attention of the lumberman to our vast resources and our State is fast being denuded of one of her most valuable assets. The loblolly, or old field pine, which grows to a very considerable size east of the Piedmont region, gives a large yield of crude turpentine, which is poor, however, in its percentage of the spirit or oil of turpentine.

The process of distillation or extraction of the volatile oil is of the ordinary kind and not of sufficient importance to take up room in a paper of limited length.

The volatile oil, commonly called spirits of turpentine, has a strong and peculiar odor, very diffusible, and a pungent, biting, acrid taste, lingering upon the tongue and fauces for a considerable while. It has a specific gravity of 0.86 at 72 degrees Far. It is exceedingly volatile and highly inflammable. It is very slightly soluble in water, to which it imparts little more than

its taste and pungency, partially soluble in alcohol and highly so in ether. It mixes readily with Essential or volatile and expressed oils. Not very readily, however, with castor oil. It is a compound of Carbon 20 and Hydrogen 16 in its purity, and is practically isomeric with the radicle of camphor or camphene. It is this close relationship which gives it its high stimulant and anti spasmodic powers. Its power of absorbing oxygen and again giving it off under certain circumstances account in part for its antiseptic virtues. Though not classed among the higher powered antiseptics, yet it has a field of its own. It has a marked power of inhibiting the growth of many of the lower organisms. According to Ruhland it stands fifth in its power of inhibiting the development of the strepto- and staphylococcus "in vitreo" and in its arrest of the development of the Pyogenes Aureus. The detailed account of various observers would be too long for this paper which is intended to be an exposition of the consensus of opinion of many observers and experimenters in this field. But to pass from the work of the laboratory to that of clinical experience opens a much broader and more fertile field. In connection with its surgical uses I will call attention to the matter of tetanus It is a well known fact that it is but little known throughout the turpentine region of the South, and is prevalent in the North and West, especially following the Fourth of July celebrations. I am firmly convinced that this marked difference is due to the universal use of turpentine as a first and generally the only application to injuries of this nature. It is a fact well known to all of us that it is an universal remedy in our country and is always at hand as a common sense household application, possibly outranking even castor oil and paregoric. In over 30 years of surgical practice in Asheville and vicinity I have yet to see a case of tetanus or streptococcus infection where the wound was primarily thoroughly flushed and dressed with turpentine. This fact affords some food for reflection. Its universal presence in the household and its freedom from danger commends its use to those who have not at their command the possibly higher powered but more dangerous preparations of bichloride of mercury, carbolic acid and like preparations better known to the profession. The general physician, indeed, is not in the habit of advising the keeping in the household of remedies of this class for reasons that are obvious. The simpler well known and non-toxic remedy will continue to be the favorite one till the source of supply has been fed to the greedy maw of the lumber mill.

Its use externally as a rubefacient and counter-irritant is so well known as to need no commendation at my hands, and I should be badly handicapped in my treatment of the various diseases of the chest and abdomen were it not generally found in the closets and medicine cases of 99 out of every 100 families in the country. It is also in general use in the country as an application for follicular tonsilitis. A rather severe remedy but generally efficacious.

When we enter the field of internal medicine we are undecided as to what to mention first. It will be well possibly to try to group the uses of turpentine under its nosological indications.

It is a stimulant of the highest value but not to be classed as a narco-cerebral stimulant. Long ago it was shown that in moderate doses it produced in health, mental exhilaration, increased heat of the skin and occasionally diaphoresis, increase in fullness and frequency of the pulse. Later experiments have shown that it will increase the blood pressure from two to three m.m. In large doses it causes slight vertigo with a sense of fullness in the head, sometimes amounting to a species of intoxication. It is the systemic stimulant quality that makes it so serviceable in fevers of an adynamic type and that coupled with its positive antiseptic qualities makes it of such comforting use in the invasion of the Eberth bacillus constituting typhoid fever. In an article read before this body on the Therapy of Typhoid Fever I laid special stress upon its use in small but frequently repeated doses in cases where the tongue had become dry and glazed with a brown coat in the center with accompanying delirium and tympany. Under its continued use it is gratifying to see the tongue become moist with a return of the usual whitish fur and disappearance of the tympany and delirium and an approach to convalescence. Owing to its stimulant effect upon the mucous membranes I find it to be of service in atonic dyspepsias with a general catarrhal condition of the stomach and small intestines, with white furred, flabby, teeth indented and tremulous tongue and food fermentation. In my hands it has far surpassed all the peptic and diastatic agents. In fact, they do nothing but to relieve the stomach from its normal function during its weakness, and are in no sense curative. It is of use in the ileo-colitis of children. It is useful in such cases in small doses by reason of its stimulant action upon the blood vessels, causing lessened action of the mucous glands, and by its antiseptic action upon deleterious micro-organisms that pervade the intestinal tract. It is also valuable in colliquative diarrheas in combination with

bismuth for reasons mentioned above.

Its tonic astringent properties makes it useful in hematemesis and is of excellent service in cases of malarial hematuria given in conjunction with quinine. In hemorrhage of the bowel in typhoid not especially due to erosion of the blood vessels, but when there is passive oozing of a purpuric blood through a disorganized mucous membrane, I have found it of special service, and I cannot today place my hand on a better remedy.

Graves, of Dublin, recommends it in the nervous headaches of a hysterical character in young women, possibly on account of its stimulant and antispasmodic power over the vaso-motor system. Acting upon this suggestion I have recently used it in doses of one dram in a case of nervous headache of a most pronounced and violent character accompanied with nausea usually requiring morphine in half to full grain doses hypodermatically to get relief. I am pleased to say in this, my first essay, the headache was controlled within two hours and the patient, a delicate and nervous woman, dropped into a sound and refreshing sleep, awaking about three hours afterwards with no return of the headache. But this is only one case.

In small doses it is a diuretic, but not to be recommended for such purposes, as there are others that are not accompanied by the untoward symptoms upon the urinary organs that are sometimes exhibited after its administration. It is useful, however, in some cases where there is a purulent process in the urinary passages, appearing to act destructively upon the lower organisms present and by diminishing the blood supply.

In the purulent cystitis of the aged I have found it of excellent service when given in connection with hyosciamus. It very speedily modifies the spasm and pain in the bladder following urination or the use of the catheter. It is in common use in gonorrhea, but must yield the palm to our old friend Copaiba. It exerts a marked action in controlling excessive diuresis or incipid diabetes and is of use in the incontinence due to atonic debility of the bladder. It cannot be classed as an expectorant which it sometimes is, but in bronchorrhea and fœtid bronchitis it is of service in diminishing flows of mucous and correcting the fœtor.

Rossbach states that by reason of the fact that it is largely eliminated by the respiratory mucous membrane it exerts a stimulant action upon the blood vessels, causing contraction and resulting in absorption of the exudate and lessened action of the mucous glands. The decrease of the fœtor is due to its antiseptic action in arresting the decomposition of the secretions. It may also be used by inhalation with the steam vaporizer or the nebulizer, and in combination with lupulin has great power to control the cough which is so troublesome in such cases.

As long ago as 1818 Martinet, of Paris, in one of his theses claimed great power in this remedy for the cure of sciatica, which claim he repeated in a monograph in 1829, claiming that he had cured 55 out of 65 cases, using no other remedy.

I confess that I do not understand the rationale of its action, but consider it worthy of trial, even empirically, in the treatment of this otherwise intractable disease.

Martinet advises its exhibition in dram doses till its full physiological effect is produced.

Its power of causing contraction of the blood vessels in the pulmonary tissue makes it valuable in hemorrhage of the lungs or spitting of blood, and the fact that it is always at hand militates in its favor. In such cases, however, its congener, oil of Erigerontis Canadensis, a distiuct turpentine, has proven to be much more efficacious. It is in high favor as an anthelmintic and toenicide. In the latter case given in connection with the pulp of the pumpkin seed and followed by a full dose of castor oil it is almost a specific, frequently bringing away the parasite entire.

But the list grows long enough. A slight study of this homely but valuable remedy will prompt lo a more extended use and will show that the confidence of the laity in its powers is not misplaced.

In conclusion, I wish to state that I have ransacked the various dispensatories and treaties upon materia medica and therapeutics and have so carefully injected my own views and observations into the subject matter of this paper that I have culled from these sources, that I shall advise care in any attacks made upon it, since without careful discrimination you may confound my ideas with those of our established authorities. Since beginning this paper I have learned that a similar paper was presented to our State medical society. I have not seen it nor do I know of its scope. Should there be any marked similarity between our papers I would suggest that it might be because we had both quoted too liberally from the standard works on the subject.

Fracture of the Astragalus with Forward Dislocation of the Foot: Report of a Case.

By Robert L. Gibbon, M.D., Surgeon to the Presbyterian Hospital, Charlotte, N. C.

The capacity of the ankle joint for functional recovery after severe traumatism is a well known clinical fact. Even where the injury is complicated, as it very often is, or where it is necessary to remove in part or whole some of the bones going to make up this articulation, the patient as a rule gets a fairly useful limb. Not infrequently there may result a partial or complete ankylosis of the joint, as in resection of the ends of the tibia and fibula, but if the foot is kept in a position at right angles with the leg the compensating mobility of the tarsal bones does much to ameliorate the condition.

The ankle joint is usually described as a mortise joint, the astragalus being wedged in between the two malleoli and bound into position by powerful ligaments. Motion is limited in the ankle joint proper to extension and flexion to the extent of 90°. The lateral motion of the foot is dependent upon the mid tarsal articulation, hence lateral motion in the ankle joint is decidedly pathological. The talus, or as we usually term it, the astragalus, is the keystone of the arch of the foot and receives the whole weight of the body, hence the German name of "spring bone." Its peculiar shape led to its use by the ancients in playing dice, in our day, however, it is, to the surgeon at least, only of pathological interest.

Articulating with the calcaneum or os calcis and with the cuboid and scaphoid, in addition to the tibia and fibula, the astragalus is particularly apt to play a part in any of the severe injuries about the neighborhood of the ankle joint. So strategic a position does it occupy that some confusion in the classification of injuries to the ankle joint seems to have arisen, some writers holding that the tibia and fibula are the bones dislocated, and others treating the dislocation as one of the astragalus. The recognition of dislocation and fracture of the astragalus, as an isolated injury, is of rather modern date.

I shall for the purpose of this paper follow the classification given by Stimson in his work on Fractures and Dislocations, who, in his chapter on "Dislocations at or Near the Ankle Joint" describes four different dislocations.

1. Those of the foot where the astragalus, while maintaining its relation with the other bones of the foot, is displaced from the bones of the leg. This variety is subdivided into a forward, backward, outward and inward dislocation.

2. Complete dislocation of the astragalus in which this bone is not only displaced from its articulation with the tibia and fibula, but is also dislocated from its attachments to the os calcis and the scaphoid.

3. In the third variety, known as the subastragaloid dislocation, the astragalus is attached to the tibia and fibula but is separated from the os calcis and scaphoid.

4. Finally there is a fourth class in which the cuboid and scaphoid are together dislocated from the astragalus and os calcis.

In emphasizing this division of the traumatic lesion in the neighborhood of the ankle we should also bear in mind that the injuries above described are exceedingly apt to be complicated either by a fracture of one or more of the bones involved in the joint or by extensive injury to the soft parts. Indeed, the mortality rate of former days, as well as the frequent necessity for amputation of the foot, was usually due to complicating lesions, which, in the case of the soft parts, was frequently followed by destructive infection. It is needless to say that at the present time modern surgery has done much to lessen this mortality.

The classical and most frequent cause of lesions of the astragalus is a fall from a height alighting upon the feet, the resulting injury depending in part upon whether the foot is in a position of flexion or extension. Great force is necessary, and it is said that the higher the fall the lower the injury; thus, in a fall from a great height the lesion would be in the os calcis, from a lesser height in the astragalus, while a medium fall would result in lesions of the tibia and fibula.

Fractures and dislocations of the astragalus as an isolated injury are by no means common. In the Journal of Surgery, Gynecology and Obstetrics for January, 1909, J. H. Stealy reports a case of fracture and dislocation of the astragalus, and gives a most exhaustive review of the literature on this subject, consulting in all 256 authors, many of them foreign. He quotes Gaupp, of Berlin, as finding only 59 cases in reviewing the literature up to 1894. As a result of his own investigations Stealy was able to report 122 isolated cases of fracture; 68 cases were combined, involving other bones; 48 cases were compound. He quotes certain conclusions of R. H. Reid, who makes the following summary of the subject:

"1. Fractures of the astragalus are uncommon.

"2. Reduction in these injuries is the exception.

"3. Total failure is the rule.

"4. Cases may get well on conservative lines of treatment.

"5. On the other hand such treatment may prove disastrous.

"6. A fair degree of recovery may follow excision of fragments.

"7. A remaining fragment may necrose.

"8. Injury is nearly always permanent."

From the foregoing it will be seen that in dealing with this class of injury we are confronted with a lesion that may prove most serious.

In Stealy's own case, which he saw four weeks after the accident, and operated upon, there was an oblique downward and backward fracture of the astragalus and a backward and outward displacement of the body of the bone. The body of the bone was excised, together with the external malleolus and the cartilage of the tibia and os calcis. The result was most excellent, the patient being able to walk with a cane at the end of three or four months.

The following is the history of my own cases:

J. F. B., white, aged 20 years, brakeman. On July 30th, 1909, while running on the top of a box car, tripped on a piece of loose board and fell to the ground, alighting on his feet. When seen at the hospital a few hours after the injury the foot was swollen, partially inverted, and elongated. The external malleolus was very prominent, as though on the point of penetrating the skin. An anesthetic was administered and attempts at reduction were apparently successful, but after a few days it was seen by the return of the deformity, as well as by the use of the X-ray, although no photograph was taken, that the position of the bones was abnormal. On Sept. 9th, 1909, six weeks after the injury, the initial inflammatory reaction having subsided, an incision was made just in front and parallel with the internal malleolus and the ankle articulation was exposed. It was found that the astragalus was dislocated forwards from the tibia and that there was a fracture through the neck. Even then it was found impossible satisfactorily to reduce the dislocation, and the upper fragment, including the surface articulating with the tibia and fibula, was removed and the end of the external malleolus resected. The wound was then closed, using a small drain; the foot was put in plaster-of-Paris. The parts healed readily, and when last seen, some five or six months after the injury, the patient, who lived at some distance, was walking with his cane and the aid of a brace which some one has suggested. While this operation was not followed by so prompt a return to the use of the limb as in the case reported by Stealy, still there does not seem to be any reason why this patient should not ultimately be able to get along satisfactorily, at least with the aid of a cane.

Since beginning this article I have, through the medium of an X-ray picture, definitely diagnosed a second case of fracture of the astragalus, with displacement of the fragment.

H. E. W., aged 23, brakeman on Southern Railway. March 11th, 1910, he jumped from train to avoid an impending collision, landing squarely on his feet. In the absence of any definite symptoms, his injury was diagnosed by a local physician as a severe sprain of the ankle. Six days later the patient came under my care. There was a moderate amount of swelling, no crepitation or abnormal mobility. Under treatment the case progressed favorably up to a certain point. He is able to walk without a cane and with a slight limp, but he cannot run or bear weight on toes. Foot does not pain except in certain positions. The X-ray picture discloses a fracture of the anterior portion of the astragalus with displacement of fragment upwards. It is a question of importance to decide whether or not an operation for removal of the displaced fragment in this case is advisable under the circumstances. In the absence of further improvement in the functional usefulness of the foot, I am inclined to think an operation advisable.

Rupture of the Uterus in Labour, with Report of Case.

By B. L. Hillsman, M. D., Richmond, Va., Professor Minor and Orthopaedic Surgery, University College of Medicine.

Literature on this not infrequent accident and certainly the most serious complication of labor, both to mother and offspring, is very scant in the English language, but German and French surgeons have treated the subject very extensively. It is not my purpose to go into a statistical review of the subject but simply to call your attention to the importance of the early recognition of the condition. The earliest case I can find any report of in America was in 1849 by Dr. Meigs of Philadelphia. His description of the case, like all of his writings is very lucid and beautiful. His case was a source of great worry to him. The child was extracted through the rent in the uterus by the use of great force. He says the sufferings of the woman and an early death impressed him more than a thousand arguments could do, of the deep conviction of the cruelty of such a mode of delivery and the decided preference for a Gastrotomy through the linea alba. He then reports a successful case operated on by Dr. John Neill, by abdominal section. Modern text books on Obstetrics only speak of the great danger of the accident, but do not lay stress on the

subject it deserves. By most authorities the frequency of the accident is placed at 1 in every 700 cases.

Bandl found	1 –1200
Jolly	1– 3403
Lusk	1– 6000
Collins	1 – 482
McClintock	1—737
Winckel	1 – 666
Koblanck	1– 462

Multipara are more liable to the accident than primipara 7 to 1 according to Bandl.

The two chief varieties are the complete and the incomplete; or those involving the peritoneum and those which tear through the musculature only. The tear varies from the size of an almond to an opening large enough for the child to pass through into the peritoneal cavity. The neighboring hollow viscera may be involved.

The following case was refered to me by Dr. C. Howard Lewis of Richmond, and he has furnished me with the case history up to the time of the accident.

Mrs. S —White—Age 28, native of Virginia, residence Richmond.

Past History.—Patient remembers having no illness, except malaria at 16 years of age. Began to menstruate at 13, having no trouble at the establishment of the function. Menstruation regular, Had severe cystitis 3 years ago. Has had two children prior to the last, ages 10 and 6. Had no trouble at either delivery, the time occupied being from 6 to 7 hours. Has had three abortions since the birth of the last child, and had to be curetted in each case. The last abortion and curettment occurred one year prior to present delivery.

Family History.—Negative.

Present History.—Made preliminary examination of patient Aug. 24, 1909. Found her in good health, her pregnancy having been uneventful. Found pelvis capacious, but did not measure it, depending on digital examination and past history of uneventful labors. Nothing transpired of importance up to delivery. Was called on Sept. 27th, at 11 p. m. Patient had been in first stage of labor five hours, suffering slightly. Bowels had been moved by enema; had passed urine; amniotic fluid had been continuously passing. On examination found os soft and elastic,—dilated to the size of a dollar, membranes ruptured, did not diagnose presentation beyond that of head. Second stage pains began about 12:30 a. m. They were strong, regular and effectual in character. Examined again at 1:30,—diagnosed a left anterior brow presentation, os completely dilated and head well fixed in pelvic brim. Pains still regular and strong, occurring about every three minutes. Patient began to be apprehensive, because former labors had never continued so long nor caused her such intense suffering. Pulse full, strong and normal in count. At 2:30 found brow had been maintained. Slight descent had occurred. Head did not advance during a pain, and now occupied mid-pelvic region. Pains still strong and regular. Pulse full and strong. Examined at 3:30. The brow still persisted and had made no appreciable advance since the last examination. Uterine contractions had begun to assume a tetanic character. Pulse weaker, registering 100. Gave small amount of chloroform, and made preparations for instrumental delivery. Applied forceps under chloroform at 4:15, and with little difficulty delivered the head. Head occupied mid-pelvic region. The brow persisted to the vulva, and the brow, bregma and occiput appeared in succession over the anterior margin of the perineum. The placenta was delivered in about 20 minutes with little or no hemorrhage. Child living and alright. Gave 31 of ergot after the placenta was delivered. Patient recovered from the anæsthetic without any ill effects. Pulse half hour after, full and strong and no acceleration. Left patient at 5 a. m. in apparently excellent condition. Uterus well contracted and no hemorrhage. Was called at 8 a. m. Patient suffering intense pain of a neuralgic character in region of rectum and anus. Rectal examination showed nothing and I attributed the pain to after effect of the unusual pressure which the nerve plexus had sustained during the delivery. Administered morphia. Relief was prompt. Pulse was only fair in volume and somewhat accelerated. Saw patient again at 11 a. m. Pulse 110 and showed decided weakness. Patient had no subjective symptoms other than a sensation of fullness and a slight return of the lancinating pains in the pelvis. On examination I found the vagina completely occluded by a large doughy tumor extending from the left side of the pelvis. The mass was so large that the finger could not be inserted beyond the introitus. Abdominal palpation showed the uterus pushed completely over to the right side of the abdominal cavity. Diagnosed the condition as incomplete rupture of the uterus with hemorrhage into the left broad ligament. Patient felt fairly comfortable.

I saw the woman at 2 p. m., ten hours after delivery. Her expression was anxious, pinched and very pale, appearing practically bloodless. Pulse 150 and very weak and thready. Comfortable, only complaining of thirst and air hunger. Found vagina occluded by a large tumor and a large mass in the left pelvic region, the hard contracted uterus over in the right. No external hemorrhage. Advised immediate

operation, but told the Dr. I feared she would not live to get to the hospital. Dr. Winn saw her after her arrival at the hospital and I operated before his class. She was put on the table at 4 p. m. and preparations were made to commence intravenous transfusion immediately after the incision was made. On incising the peritoneum there was a gush of blood. I turned out the clots and did a rapid supra-vaginal hysterectomy. The patient was on the table 20 minutes. She took a little over a pint of normal saline solution. Drainage was introduced and she was placed in the Fowler position as soon as she reacted and saline given by the Murphy method. The recovery was uneventful.

This was evidently a primary incomplete rupture which from pressure ruptured into the peritoneal cavity some hours afterwards.

The usual cause of the accident is a disproportion between the presenting part and the birth canal. Neglected transverse positions, contracted pelvis, stenosis of cervix, trauma and healed scars following Cæsarian section and curettments are some of the more common predisposing ætiological factors. I am satisfied that the injudicious and unintelligent use of the curette is the most frequent cause in the majority of cases. The exciting causes are unintelligent use of ergot, attempting versions and the application of forceps when Bandl's ring can be felt as a thick, hard ring nearly up to the umbilicus, with the lower segment of the uterus as thin as paper.

The site of the rupture is usually on the left side, due to the usual right obliquity of the uterus bringing greater traction on the left lower uterine segment.

The premonitory symptoms are ascent of the contracting ring, tension and tenderness of the round ligaments, thickening of the upper part of the uterus, great anxiety and restlessness of the patient, strong tetanic contractions of the uterus accompanied by great suffering.

Suddenly at the height of a pain the woman exclaims that something has given away; the pains cease, there is collapse and signs of hemorrhage if the rupture is complete. In incomplete rupture the symptoms are not so marked, but by careful study of every case of labor, by keeping eternally in mind that rupture is a dangerous possibility and by making a thorough vaginal examination before leaving a case, the diagnosis can be made. On examination in complete rupture the presenting part will be found out of reach and the child partly or completely in the peritoneal cavity with the uterus contracted down hard by the side of the fœtus. The intestines may protrude. If the child has been expelled per vagina, and the rupture is incomplete, you will find a hæmatoma on the side of the uterus, the cul-de-sac and the vaginal wall bulging. Do not mistake a hæmatoma caused by a tear in the vaginal vault for a ruptured uterus. This can be pushed back through the tear and the rent sutured.

I do not believe that the possibility of uterine rupture as a cause of hemorrhage is properly appreciated by the obstetrician. I have no doubt that many reported deaths from post-partem hemorrhage are due to rupture, and I hope that this paper may bring the profession to the proper appreciation of the accident, and that early diagnosis and prompt surgical intervention will materially decrease the mortality of so-called post-partem hemorrhage. Abdominal section is the only rational treatment. Under suitable circumstances and when the rupture is due entirely to an abnormal position and the rent is not jagged, the rent in the uterus may be sutured; but under any other condition, the uterus should be removed. Before the days of asepsis and improved surgical technic the mortality was 90%. In 60 cases without active treatment the mortality was 78.8%; in 70 cases treated by irrigation and drainage 64%; in 193 cases treated by abdominal hysterectomy 55.3%. I believe drainage is indicated in the majority of cases, for infection is the rule. Reported deaths are due either to hemorrhage or infection.

Pulmonary Tuberculosis: Its Early Diagnosis and Subsequent Management.

By W. D. Tewksbury, M.D., Catawba, Va.

In presenting this paper to the Tri-State Medical Association I wish to appeal particularly to the general practitioner upon whom a great deal depends in our fight on tuberculosis. Since I have been in charge of the Catawba State Sanatorium, which is an institution intended for the treatment of incipient pulmonary tuberculosis, we have had the same difficulty to contend with which confronts every sanatorium of this nature, namely, the difficulty in obtaining truly incipient cases. Of seventy patients who have been treated during the past six months only twenty-five per cent. have been incipient cases, the remaining seventy-five per cent. being either moderately advanced or far advanced. This can be accounted for through several factors. First, many patients do not present themselves to physicians for examination until the disease has passed the incipient stages. Second, many patients will not consent to take sanatorium treatment until the disease is in an advanced stage, even though advised to do so by their physician. Third.

many physicians in the past have overlooked cases of incipient tuberculosis, ascribing the symptoms to bronchitis, gastric disturbances and many other diseases. The work the health departments and various tuberculosis leagues are accomplishing should undoubtedly do much towards educating the people to consult physicians earlier about this disease and towards overcoming their prejudice to sanatorium treatment. Now, the responsibility of diagnosing the disease in its incipiency falls upon the medical profession and of course almost entirely upon the general practitioner.

Most physicians under the stress of a busy general practice do not keep tuberculosis in mind as much as we who specialize in the disease, but the fact that the most conservative observers claim that fifty per cent. of the human race have had the disease sometime during their life, while others claim as high as ninety per cent. have been afflicted, certainly warrants me in saying that it is the duty of every practitioner to bear in mind the possibility of tuberculosis being present whenever he is consulted by a patient, and to eliminate it before making another diagnosis.

There are several general methods of diagnosing the disease which are at the command of every practitioner, namely, a study of the personal and family history, a careful study of the clinical picture, a careful physical examination and a sputum examination. Practically all the States have now made provision for the examination of sputum at public expense, so that every physician may take advantage of this means of diagnosis in a suspected case. One of the first steps should invariably be an intelligent investigation of the personal and family history. First, is there a history of tuberculosis in the family. Second, has the patient been associating with any person who was suffering with probable tuberculosis from whom he may have contracted this disease. In my experience, careful and insistent questioning on this point has elicited an affirmative answer in at least sixty per cent. of my cases. If a patient has a clear history of exposure to the disease, even though the symptoms be very slight, then is the time to make a careful examination and use every method at our command to eliminate or confirm our suspicion of tuberculosis. If a patient has been exposed to diphtheria, smallpox or many other diseases he invariably receives a careful examination and is kept under close observation, therefore why should not the same precaution be taken to some extent at least in this disease. By thus watching more carefully persons who have been exposed to tuberculosis, a great many more early cases would be diagnosed and treatment instituted. After having thoroughly investigated the history of the case, the clinical picture should then be studied with a special reference to the temperature, pulse and respiration. Of course a slight persistent cough, digestive disorders, general lassitude and loss of weight are all important items in making up a typical clinical picture, but they are very seldom overlooked, whereas a conscientious study of the temperature, pulse and respiration is neglected far too frequently. A member of the patient's family can easily be instructed in the use of a clinical thermometer and a record kept morning, noon and evening is invaluable as an aid towards a diagnosis. Frequently the temperature, pulse and respiration will be perfectly normal while the patient is at rest, but if taken immediately after exercise will be found perceptably elevated. I have often instructed patients to take a brisk walk, taking a record immediately afterwards, and have personally found this device to be of much assistance when the diagnosis is obscure. Some few cases, however, practically never gd above normal in the afternoon but invariably run a sub-normal temperature in the morning, and I believe most authorities consider this to be as typical as is the hyperexia. I have seen probably forty cases during the last two years whose temperature oscillated between ninety-six and ninety-eight and four-tenths, but very rarely ran above normal. Still I have heard physicians say, "This patient cannot have tuberculosis, his temperature is never above normal, in fact it is usually sub-normal," which shows that the possible significance of a sub-normal temperature is not universally understood. In regard to the physical examination there are only a few points I wish to make. I have always found in percussing the chest that more can be learned by striking the chest lightly rather than heavily, although I am aware that many skilled diagnosticians use heavy percussion. I have, however, confirmed a large number of my physical examinations by post-mortem examination and have found that light percussion has brought out the lesions very accurately, and it certainly causes the patient much less discomfort. I wish to make a plea to the practitioners for at least a trial of this light form of percussion. If an area of impaired resonance is noticed and auscultation reveals a roughened inspiration with a prolonged expiration, tuberculosis should be strongly suspected, while if a few fine rales can be heard at the end of inspiration the diagnosis is practically assured. Another sign referred to by Dr. Flick, of Philadelphia, and others, and one which I

have noticed frequently in very early cases, is the presence of a pleuritic rub or creak towards the end of expiration. If we are not certain of our diagnosis by employing the methods mentioned and feel that there is a possibility of the disease being present, we still have recourse to the various tuberculin tests and to X-ray examination, and it is at this time that the practitioner should, if it be possible, consult with a physician who makes a specialty of tuberculosis work. The indiscriminate uee of tuberculin in the past has undoubtedly worked much injury to patients, but years of experimental work and careful study by many eminent specialists has at last established tuberculin as being of undoubted diagnostic value, and moreover has reduced the dangers in its use to a minimum. Subcutaneous injections may be given, Calmette's conjunctival test may be used or the cutaneous method may be employed, but in any event some little eqperience is necessary to appreciate the presence or absence of a reaction and to avoid untoward effects. Prof. Detre, of Budapest, has adopted a method of using diagnostic tuberculin, which he claims is also of value in indicating the character and stage of the infection. I assisted Prof. Detre in using his methods on a series of twenty cases while I was the resident physician of the District Tuberculosis Hospital in Washington. He places three drops of tuberculin on the forearm about two inches apart, one is a drop of a culture of human filtrate, another a drop of a culture of bovine filtrate and the third is a drop of Koch's Old Tuberculin. He then scarifies the skin through each drop and after allowing a few moments for absorption the excess of tuberculin is wiped off. An inflammatory zone around the scarified area indicates a reaction. A most intense reaction at the site of inoculation with human filtrate would indicate an active early case of infection with the human bacillus. If the inoculation with bovine filtrate reacted most violently the disease is of bovine origin, and if the site of inoculation with the Old Tuberculin shows the most intense reaction the disease is of a chronic, rather inactive type. Prof. Detre also claims that if used in conjunction with the treatment it offers valuable information as to the progress of the case. His claims were rather well substantiated in the few cases upon which I observed its use. Dr. Baldwin, of Saranac Lake, after using the different forms of diagnostic tuberculin in over 1000 cases, says, "The cutaneous test offers a method of detecting at once or excluding tuberculous infection with no danger or inconvenience. The subcutaneous test should be restricted to those cases when a reaction of the site of the disease is desired or when other tests result negatively." I use subcutaneous injections of tuberculin only as a last resort, but have been doing some little work with the cutaneous test which I will report later. As to the value of the X-ray in diagnosing tuberculosis, my experience has been very limited, but from the immense strides which have been made in this work during the past few years and from the few cases in which I have observed its use, I would say that it will certainly be of most material aid in diagnosing obscure cases in the future.

After having made a diagnosis, the question as to what shall be the subsequent management of the patient confronts us. Shall we treat him at home, shall we merely advise a change of climate or shall we send him to a sanatorium. Treatment at home is in my opinion always inadvisable if sanatorium treatment be possible, for it stands to reason that habits of a lifetime cannot be readily overcome in the home environment, and in addition the other members of the family are undergoing a certain amount of risk by daily association with the patient. I do not mean to depreciate, however, the work which is being accomplished by the various clinics in our cities, as they have undoubtedly done a great deal towards educating the people and are, moreover, the only method by which we can reach a large number of cases who will not or cannot go to a sanatorium. If the physician merely advises a change of climate to Colorado, California, New Mexico, North Carolina or any locality which has been considered beneficial, and allows the patient to shift for himself, irreparable damage will often be done through the patients lack of knowledge of the proper mode of life. Therefore, it seems to me that by far the best course to pursue is to advise sanatorium treatment, and by so doing the patient is kept under careful supervision, taught when to rest, when to exercise and how to exercise, given a proper diet and taught the value of careful sanitation so that when leaving the sanitorium, whether cured, improved or unimproved, he has been so educated that he not only ceases to be a serious menace to the community, but can in fact do much toward educating those with whom he comes in contact. On the other hand, take the case of a patient suffering with tuberculosis, but never having had sanatorium treatment, though his trouble had been diagnosed a year before; this patient had been working in Roanoke, Virginia, for some months and finally became so weak that he was obliged to present himself to the physician in charge of the city clinic, where he was examined and ques-

tioned. He had been expectorating on the streets of Roanoke and in various business houses and had coughed up blood on the streets a number of times; he was without money or friends and there was no suitable institution in Roanoke or in the State where he could receive treatment. The physician in charge of the clinic was obliged to personally solicit funds enough to get him to another State where he claimed to have a possible residence and where a sanatorium for advanced cases of tuberculosis had been established.

I could cite several similar instances which have occurred in Roanoke, and there are certainly hundreds of similar cases in the State at large. There is undoubtedly a crying need at the present time for a sanatorium for advanced as well as incipient cases in the State of Virginia. I will not encroach on your time by describing the treatment used at the Catawba Sanatorium other than that it has been careful general treatment combined with the judicial use of tuberculin in selected cases, and while the results have been very gratifying, the short time which has elapsed since the opening of the sanatorium would render a full report of little value.

In closing, however, I wish to make a plea, especially to the practitioner of Virginia, for a favorable attitude toward sanatorium treatment, as I sincerely believe it to be the most potent weapon at our command with which to stamp out tuberculosis which is so prevalent among the people of Virginia and the people of our land.

A Consideration of Pain as a Symptom of Disease Involving the Right Half of the Abdomen.*

By Dr. Benj. B. Steedly, Spartanburg, S. C.

In selecting this subject I have not hoped to advance many new theories nor in the brief time allowed to give consideration to all the affections of the right half of the abdomen, but rather to review the essential features which aid us in arriving at a diagnosis and present the same in a practical way most suitable for a better understanding of some of the more obscure manifestations of disease affecting this part of the body. To this end, I will discuss pain as it occurs and as it is complained of by patients in each of the several anatomical regions.

While I presuppose a fundamental knowledge of the topography and relative position of the organs contained within the abdomen, together with the physiology of the nervous mechanism concerned in transmitting painful sensations from the viscera to the central nervous system, there are certain phases to which I desire to direct attention now.

Whereas the spinal nerves ordinarily connect directly with the parts which they supply, it is different when they come to supply the viscera. Here the sympathetic system is interposed. This arrangement is for a diffusion of impulses, which is made possible by the fact that one efferent spinal nerve fibre may connect with several nerve cells in a sympathetic ganglion. These latter through their axis cylinder processes are capable of a much wider distribution than would be possible without such a system.

While the sympathetic constitutes the chief nerve supply of the abdominal viscera, certain spinal and notably one cranial nerve send fibres directly to them. For example, the vagi, which together with the sympathetic supply the stomach, also supply fibres to the gall bladder and greater part of the intestines. By reason of this extra vagus supply to the gall bladder and small intestine, pains originating in these organs are not infrequently referred to the abdominal organ chiefly supplied by the vagi, viz.: the stomach. Hence, such pains as these are spoken of as *referred* pains.

Closely related to *referred* pains are the so-called *transferred* or *sympathetic* pains, which are felt at some point on the skin instead of in the internal organ which is the source of the pain. This transference of the pain is explained on the ground that both the skin area and the organ involved receive their nerve supply from the same segment of the spinal cord and that the pain is often felt in the part of higher sensibility, that is the skin, rather than in the part of lower sensibility to which the stimulus is actually applied. We speak of the internal organs as being of lower sensibility because they possess only the common sensation of pain and are devoid of tactile and temperature sense.

Another very interesting clinical observation in regard to pain is its *incomplete localization*. While sensations of touch and of heat and cold are referred by the mind to almost the exact point of contact, the localization of a painful stimulus is not so definitely circumscribed. This is especially true of intense pains, slight pains being interpreted with a greater degree of accuracy. These observations apply throughout the body, but are more pronounced in the case of the internal organs. A familiar example of this incomplete localization is severe intestinal colic, in which the pain is complained of as being nearly all over the abdomen, the irritation probably proceeding from only a small part of the intestine,

*Read before the Richmond meeting of the Tri-State Medical Society.

whereas, on the other hand, a mere twinge of pain in the abdomen is easily assigned to a fairly circumscribed area.

Lastly, we have to consider a variety of abdominal pain which I would term *reflex* and to which I shall refer again.

Thus, it is seen that in the interpretation of abdominal pain there are various misleading and confusing factors, viz: Diffusion of pain, referred pain, sympathetic pain, incomplete localization of pain, and reflex pain. These should ever be borne in mind. Fortunately the tenderness or pain elicited on palpation leads us more correctly to the region involved and, if pressure upon an organ gives rise to pain of the same character as the spontaneous pain complained of, such organ may be safely considered the seat of the lesion.

For the purposes of my paper I will adopt a simple division of the abdomen by drawing one vertical and one horizontal line, the vertical line passing from the ensiform cartilage through the umbilicus to the symphysis pubis, and the horizontal at the level of the umbilicus and ending on either side at or a little anterior to the highest point of the iliac crest. The anterior portion of the abdomen is thereby divided into four regions, the right and left upper and the right and left lower quadrants. The upper quadrants are limited laterally by the continuation downward to the iliac crests of the mid-axillary lines and the lower quadrants by the portions of the iliac crests anterior to the mid-axillary lines and by Poupart's ligaments. There are two posterior abdominal regions, each limited externally by the mid-axillary line, internally by the spinous processes of the lumbar vertebræ, above by the lower margin of the thorax, and below by the crests of the ilia and the ilio-lumbar ligaments. It must be borne in mind that these upper and lower boundaries are only superficial demarcations and by no means coincide with the deeper boundaries.

This subdivision is not intended to replace those of Cunningham and others, which divide the abdomen into nine regions, but is only offered as a convenient one, useful in recording histories. Furthermore, it is not applicable in all cases, since patients frequently refer their symptoms to the middle portion of the abdomen instead of to one of the quadrants, when it becomes necessary to make use of the familiar terms, epigastric, mesogastric, and hypogastric regions.

It is essential to an understanding of diseases of the abdomen that we familiarize ourselves with a number of artificial and natural landmarks in their relation to the internal organs, for, while these landmarks may not overlie all the various organs, they serve as points of departure from which we can trace the outline of those which lie in proximity. Indeed, to my mind a thorough knowledge of the anatomy of the viscera is the foundation and most important step in diagnosing their diseases.

In each of the three regions of the right half of the abdomen there is at least one important organ which should always be excluded or included as a causative factor in the production of symptoms referable to the corresponding region. For example, in the right upper quadrant we have as a very frequent source of trouble the *gall bladder*, in the right lower quadrant the *appendix*, in the right posterior the *kidney*. These three are so frequently productive of mischief that we would make no mistake to speak of the right half of the abdomen as being divided into the gall bladder, appendix, and kidney regions respectively. So I will consider pain as occurring in the chief organ in its area and differentiate it from that which occurs in other affections.

Pain in gall bladder disease varies in character and intensity from a dull aching observed in mild cholecystitis to colicky and cutting pains when there is a sudden hindrance to the egress of its contents. While the character of the pain gives us a probable idea as to the nature of the trouble (colicky pains indicating gall stones), experience teaches that about one out of every six or seven patients who complain of colicky pains are found to have no gall stones. Conversely, stones have been found in about three-fourths of the patients who had only the dull aching pains.

Deaver, in a recent article, lays stress on a sense of tightness or constriction across the epigastrium as being characteristic of gall stones and considers this a valuable aid in the differentiation from other lesions of the upper abdomen.

The location of pain originating in the gall bladder may be said to be in the gall bladder region and in the epigastrium. So often are so-called stomach symptoms referable to gall bladder disease that we have learned in recent years to consider seriously the possibility of the latter in all cases of long continued indigestion accompanied by distress in the stomach, and more especially if these symptoms occur from three to four hours after eating, when the normal contractions of the gall bladder are known to take place. If these attacks of indigestion are separated by days or weeks of comparative freedom from same, it is all the more indicative of gall bladder disease. Gall bladder pains are also commonly referred to the region of the right scapula and less often to the right shoulder and appendix

region. Tenderness over the gall bladder usually accompanies disease of this organ and is best elicited by placing the fingers deeply under the gall bladder and requesting the patient to inspire.

The most likely affections to be confused with gall bladder disease are gastric and duodenal ulcer, nervous gastralgia, gastric and hepatic carcinoma, inflammatory conditions of the liver, pancreatic disease, and intestinal colic. So far as the pain is concerned, it may be very similar, but the following differences have been noted:

In gastric ulcer the pain is more distinctly aggravated by taking solid food, though liquid food, and especially albuminous liquids, often relieves the pain by diluting the hyperacid contents of the stomach, whereas, when gall bladder pain is induced by taking food, there is no special difference between the effects produced by solids and liquids, and the pain in gall bladder disease is never relieved by taking food of any kind. As to the time of occurrence, this varies, but in pyloric ulcer and especially duodenal ulcer and gall bladder disease, it is more apt to occur from two to four hours after eating. The point of greatest tenderness, however, is different in these three conditions. In gall bladder disease it is just below the lower border of the 9th right costal cartilage and is altogether less marked than in ulcer. In gastric ulcer it is in the median line just below the ensiform cartilage, sometimes to the left of this point, or in the transpyloric line, and posteriorly one inch to left of spine between the 10th and 12th dorsal vertebræ. In duodenal ulcer it is usually over the right edge of the bodies of the 1st and 2nd lumbar vertebræ, though it is frequently only in the median line, and often in gastric or duodenal ulcer the tenderness is diffuse over the epigastrium. So that, notwithstanding these points of difference, duodenal ulcer especially is frequently mistaken for gall stones. This would naturally be expected on account of the close anatomical relationship of the first two or three inches of the duodenum to the gall bladder and it is in this part that at least nine-tenths of duodenal ulcers occur.

In addition to this source of error I have observed in two recent cases what I consider reflex painful contractions of the gall bladder dependent upon an ulcerated duodenum. In both of these cases there was more or less constant pain in the epigastrium and at times colicky pains in the gall bladder region extending through to the right infra-scapular region. Others with myself naturally made a diagnosis of gall stones, but at operation I found none and the gall bladder appeared normal. From the subsequent history of these cases I felt justified in changing my diagnosis to duodenal ulcer. Therefore, I conclude that, whereas the emptying of the chyme into the duodenum reflexly causes normal contractions of the gall bladder with the pouring of its alkaline bile into the duodenum, the presence of an ulcer allows an undue irritation of the afferent nerve endings, which, instead of setting up a normal reflex, gives rise to spasmodic and painful contractions in its attempt to respond to the unusual stimulus produced by the action of the acid chyme on the ulcer.

Nervous gastralgia gives rise to spasmodic, burning pain, independent of taking food, often relieved by the latter or by pressure upon the stomach.

Carcinoma of the stomach or liver gives sensations of weight and continuous sensations of dull, ill-defined epigastric and hypochondriac pain with moderate tenderness over the lesion. Paroxysmal pain is occasionally observed.

In *abscesses of the liver* the pain and tenderness are felt over the liver proper. The character of the pain is that of diffuse soreness. The accompanying symptoms and physical signs are usually sufficient to make the diagnosis clear.

Pancreatic calculi and *acute pancreatitis* produce sudden sharp epigastric pain which is with great difficulty distinguished from other acute conditions of this region.

In *intestinal colic* the pain is felt chiefly about the umbilicus and radiates in various directions.

Of course, in differentiating these conditions the associated phenomena are of material assistance, but other than to elucidate the subjective symptoms of pain and tenderness is not the province of this paper.

The most frequent source of trouble in the lower right quadrant of the abdomen is the appendix. Appendicitis gives rise to pain which at first centers around the umbilicus, but which is later localized in the right iliac fossa. There are cases, however, in which from the beginning the pain is confined to the right iliac region. The character of the pain is nearly always sudden and cramp-like, though occasionally it amounts to only a dull aching and may even be absent, as is sometimes observed in gangrenous forms. Palpation reveals tenderness over a circle a few inches in diameter which usually has its center at McBurney's point. In chronic appendicitis the patient complains of an uneasiness or slight soreness in the appendix region, which is subject to acute exascerbations following slight causes such as indiscretions in diet, collections of feces in the cæcum, or muscular exertion.

On account of the similarity of the pain in certain other affections to that of appendicitis, it has to be differentiated from the following:

1st.—*Appendicular colic*, in which the pain is identical, but, there being no inflammatory reaction, the tenderness is less marked.

2nd.—*Enteralgia*, dependent on a neurotic or hysterical condition or on tabes. In this the pain is usually diffuse but is most intense in the umbilical region.

3rd.—*Intestinal colic* due to the presence of irritating substances in the intestines. This is characterized by severe paroxysmal pain most intense in the umbilical region, but showing more of a tendency to radiate in different directions than in simple enteralgia. The radiation follows the advancing peristaltic movements and the sensation of the shifting of intestinal gases is felt. There is no tenderness on pressure, but, on the contrary, it often seems to afford some relief.

4th.—*Intestinal obstruction*. The pain in this condition is like that in the early stages of appendicitis and intestinal colic. Later, in the course of these affections other symptoms and signs are added which make the differentiation easy.

5th.—*Renal colic* and *Dietle's Crises* are sources of error in diagnosticating appendicitis, but in these the pains appear to originate in the loin and radiate into the groin, testicle, and inner side of the thigh.

5th.—*Typhoid Fever*. The swollen and tender ileum and mesenteric glands of typhoid fever have more than once caused surgeons to suspect appendicitis and even open the abdomen before discovering their mistake. The more gradual onset of the pain in typhoid fever together with the absence of other features peculiar to the latter condition will prevent error in most cases.

6th.—*Right salpingo oophoritis* and *tubal pregnancy* may give rise to pain closely resembling that of appendicitis, especially when the appendix is situated lower than usual. A thorough pelvic examination, coupled with a careful history of the case, should serve to differentiate these conditions.

The last region for consideration is the posterior abdominal, which contains as its chief organ the kidney.

Kidney pain is referred to this region or, as it is commonly called, to the loin or small of the back and varies in intensity from a feeling of discomfort or dull aching, accompanying a slightly movable kidney or a benign tumor, through the somewhat greater disturbance due to the passage of small sand, to the intense suffering of renal colic, consisting of paroxysms of agonizing, dragging pain in the loin of the affected side. Pain in the kidney, while having its greatest intensity in the loin, has a definite course of radiation, which is from the loin, following the course of the ureter, sometimes to the bladder, but usually to the groin, testicle, and inner side of the thigh. This radiation corresponds to the distribution of the ilio-inguinal nerve, but also sometimes includes that of the anterior and genitocrural nerves. Exercise increases the pain of renal calculus. Palpation usually reveals tenderness just below the last rib, especially when assisted by counter pressure in front.

Renal colic, while commonly due to the passage of a calculus, may be caused by anything which produces a sudden blocking of the ureter, such as the twisting of the pedicle of an abnormally movable kidney (Dietle's Crises) or the passage of a clump of mucus, pus, or blood clot.

Pain and tenderness in the loin are symptoms of acute inflammations of the kidney, such as pyelitis, pyelonephritis, pyelonephrosis, and perinephritic abscess. In these the pain is of a stretching character, there is marked tenderness on pressure and in the severer types the slightest movement of the body increases the suffering.

Similar but less marked pain characterizes tuberculosis of the kidney, but the difference in the constitutional symptoms and the examination of the urine serve to differentiate these affections.

Peri-nephritic inflammation exhibits superficial tenderness, whereas inflammation of the kidney itself exhibits tenderness only on deep pressure and, according to Johnson, the tenderness of peri-nephritic abscess is most marked posteriorly just below the last rib, while the tenderness of true renal suppuration is most marked in front.

Lastly, we must differentiate *myalgia*. I use this symptomatic term to cover a large group of cases showing pain in the muscles or fascie, whether its origin be diathetic, rheumatic, neuralgic, or be due to a strain or exposure to cold. It is my opinion that the majority of patients who complain of pain in the posterior abdominal region are afflicted with myalgia or, as it is popularly known, lumbago. I can not help having a feeling of resentment when I glance at advertisements in the lay papers with large headlines reading, "PAIN IN THE BACK MEANS KIDNEY DISEASE." This is made all the more repulsive by an accompanying cut of a man in the characteristic attitude of one suffering from lumbago. By always bearing this common condition in mind it ought rarely, if ever, be mistaken for anything else. The more superficial location of the pain, its evident dependence on bringing into action the muscles of the

loin and lower part of the back together with the absence of constitutional and urinary symptoms, make a characteristic picture.

I did not mention myalgia as a cause of pain in the anterior abdominal regions because of its infrequent occurrence. It, however, should be borne in mind, as it is occasionally seen. Only a few weeks ago I had a case sent me for operation, a probable diagnosis of gall stones having been made. After keeping her under observation a few days, I was convinced that the pain was entirely in the superficial parts and so spared her an operation and her physician and myself embarrassment.

Mental Hygiene in the Young.*

By Paul V. Anderson, M.D., Morganton, N. C.

The highest aim in medicine is the prevention of disease, and, as the result of the untiring activity of the physician with this idea in view, the average age at death, which in 1840 was twenty-eight years, had, in 1900, been increased to 34.5 years. Prophylaxis is the watchword everywhere. Yellow fever, malaria, and plague are being controlled, while the crusade against tuberculosis and uncinariasis is in full force, and pellagra is being assiduously investigated. Practically all the work done, however, has been towards the prevention of bodily disease, and mental and nervous hygiene, and the prevention of mental and nervous disorders have until recently received but scant attention.

In the past decade, great advances have been made in school hygiene. In some cities there are out-of-door schools for children who have a tendency towards tuberculosis. Medical inspection of schools is also becoming quite common in most cities and the children are being examined for adenoids, defective teeth and defective sight and hearing, and much good is being accomplished. The development of the physical machine is very properly being first considered, but the teaching of the guiding and controlling of that machine is being neglected. Of what avail, however, is a man who is a Hercules physically, and mentally a vegetating dement? He might be compared to a mighty engine, which, without some guiding and controlling power, is a useless piece of iron. I do not mean to minimize the importance of physical development and the correction of physical defects—these are of absolute importance—but I do say that mental hygiene should be considered co-equal with physical hygiene and that the physician should be able to detect symptoms of mental abnormality and advise concerning their correction as well as be able to detect physical abnormalities and advise what should be done for their correction. If this can be done, if the physician, parents, and the teacher can recognize the premonitory symptoms of mental breakdown and if they can work together to overcome these symptoms, I firmly believe that many of life's hopeless derelicts can be saved and that many a home now darkened by the awful curse of insanity will be spared this sorrow.

It is my purpose, then, in this paper, to try to point out some of the essential features of mental hygiene in the young. The democratic American idea has long held in our schools that all children have equal mental attainments. This is not true; never has been, and never will be.

In the first place, there are certain cases hopelessly defective, idiots and imbeciles, who will require custodial care, possibly for life, and the sooner these cases are removed from association with other children the better. They are a menace to the community, for from this class come many of the prostitutes who pollute the youth, disseminating the most loathsome and deadly diseases, not only ruining for life the thoughtless youth, but bringing untold misery to future generations. It is best even from an economical standpoint to confine them. To illustrate, I will give the oft-quoted history of the Jukes family, which in seventy-five years cost their community over a quarter of a million dollars for caring for the paupers and prosecuting the criminals who were the direct descendants of two feeble-minded sisters. The adult males of this class are also liable to become destroyers of property, incendiaries, and the violators of women and children.

Another class of cases are those who are mentally dull, that is, the laggards, the backward or retarded boys and girls who, if they are not taught properly, become disheartened because they cannot keep pace with their fellows, get an utter disgust for school and drop out, only later to fill the courts and the State training schools, or to be added to the State's already too large class of criminals and derelicts. Ayres, of the Russell Sage Foundation Society for the Study of Backward Children, states that one-fourth of the school children are not in the proper grade for their age, or have made less progress than they should for the time they have attended school. Of course, this is not due altogether to mental backwardness. Certain children naturally develop slowly, and may, at times, require two years to do one year's work; later, how-

*Read before the North Carolina Medical Society, June, 1910.

ever, they wake up, so to speak, and soon catch up with their fellows. Webster is said to have been such a dullard in youth.

This temporary retardation may be due to a variety of causes; acute illness, especially rheumatism and typhoid fever, adenoids, defective sight and hearing. It may correspond to periods of rapid physical growth, the rapid development of permanent teeth, or the beginning of puberty, or unhappy home conditions.

Dr. Fernald says, "These backward children are inattentive; easily fatigued by mental effort and lose interest quickly; they are not observant and they are not able to discriminate quickly and actively as to form, size and position. They may be dull and listless, or restless and excitable. They are often wilful and disobedient and liable to attacks of stubbornness and bad temper. A certain degree of motor defect is usually shown by awkward gait, movements and attitudes; by inability to button clothes or to lace shoes or put on over-shoes. In drawing, writing and manual training, this incoordination of the muscles of the fingers and hands is plainly shown. The lack of alertness and dexterity in simple gymnastic exercises is very evident. In the ordinary games of childhood they lack initiation and spontaneity. They do not show the strength and vigor of normal childhood." It is this class that stay in one grade year after year. They are promoted when they are physically too large for the lower grades. Finally, if they are not helped, they end their school career absolutely unfitted for the cares of life and in some cases go on to dementia. When these symptoms are noted, or when a child repeats a grade year after year, it is time to investigate the cause, and just here the physician can be of invaluable aid to the teacher. The physical machine should be attended to first and made as nearly perfect as possible. Then mental tests should be given to decide whether there is a permanent mental defect, or whether there is a simple retardation which may be overcome by the proper care. If this plan were carried out systematically, I am sure many could be saved, if not from mental breakdown leading to precocious dementia, at least from a crippling which in later life compels them to take only a small part in life's battles. This is the time when they are building for the future and the character of their future depends on how well they build.

In the study of cases who develop dementia præcox, and especially in the study of their lives before they enter insane hospitals, one is struck by the fact that these children were not defective, but rather that they were peculiar and did not "have healthy mental habits, habits which could have formed a sound, balancing influence in their conflicts." Some were abnormally bright, while others showed difficulty in learning. The majority, if not all, however, were children who did not take normal interest in the affairs of life about them. Many of these cases are seclusive, reticent, and sensitive, and do not show a tendency to get into the rough and tumble of school life. They avoid games; they do not confide in anyone their conflicts and longings; many read a great deal; are excessively conscientious and religious; are dreamers and tend to live within themselves and exclude the outside world. This satisfaction in dreaming and in good resolutions goes on until they lose sight of the real; "they develop an insidious tendency to substitute for an efficient way of meeting difficulties a superficial moralizing and self-deception." Gradually they get into a rut in which the life of action is impossible, and, under some strain for which a normal individual would be prepared, they break down mentally, for their abnormal habits have become so fixed that they cannot be corrected. Dr. Meyer has said that dementia præcox is a deterioration of habits, and he also states further that it is especially a deterioration of the instincts of action. In these cases, dreaming of great deeds takes the place of doing them.

If you will allow me to present a few histories of cases observed at the State Hospital at Morganton, I can better illustrate the points I wish to make. The first occurs in a girl who has always been nervous; was always afraid of the dark; easily excited over trifles. When her teacher would speak to her unexpectedly, she would jump. She has had marked emotional instability all her life; she cried or laughed excessively at the slightest provocation. She has always been sensitive and more or less suspicious. Her brother was insane. The mental trouble began at the opening of school in September, 1907. To quote the patient: "I started to school in September, 1907. I studied my books all the time, and all the students knew that the teacher gave us lessons which were too long. He would knock his fist against the board when you missed your spelling. He treated us like beasts and made several of us nervous, but the rest were not as bad as I. After awhile I thought about my books all the time, night and day." "Could you sleep?" "No; I couldn't sleep at all some nights. I couldn't get some of the examples in math. and I cried like a baby." The patient states further: "Thinking about my examination got me worse. I thought I would fall and it would be the first time I had ever

fell. Finally I had to quit; I couldn't study two months before Christmas. I begged the children to help me before I quit and I told them I was so nervous I couldn't think, Teacher was hard on me. Some people haven't got a bit of feeling! I give up at last and cried most of the time." The patient rapidly grew worse; began to think that her relatives and friends were against her and persecuted her. She had marked hallucinations of sight and hearing; also marked hysterical seizures. She attempted to kill herself by taking lye. She became so much disturbed that it was necessary to commit her in February, 1908. This case might have been saved had the early symptoms of mental breakdown been recognized and had she been taken from school.

O. H. was bright as a child, but was always nervous and easily frightened. She was seclusive; objected to seeing people and wished to stay by herself. She said to her mother, "Let me be by myself; people tire me." Mental breakdown occurred when sixteen years old while at school.

B. S. is a school girl of twenty. She went to the high school from the cotton mill in which she had worked from the time she was fourteen years old. She tried to work her way through school while taking the regular course, and, in addition to that, a course in stenography. To quote her: "I took up more than I could stand." She soon became timid; seclusive; despondent; doubted her ability to do things; thought she would be lost and worried over trifles. Her engagement was broken off about this time. The combination of the over-work in school and the breaking-off of her engagement resulted in her mental breakdown.

J. S. has always been head strong, nervous and hard to control and was allowed to do absolutely as she pleased at home. She could not learn well in the primary school and did so poorly at college that she was taken away. Consequently, she has only the most rudimentary education. Recently she became badly disturbed mentally. She was exceedingly erotic, undressed before the window and did everything possible to attract the attention of men. She was exceedingly silly in speech and behavior and became so troublesome several months ago that it was necessary to commit her to the Hospital.

S. J. learned well at school, but was always nervous and different from the other children in the family. She has had marked hysterical seizures ever since her first menstrual period which occurred when she was eleven years old. Two years ago she worked in a telephone office. She soon got so, however, that she couldn't remember, her books became mixed up, and she had to go home for a while to rest. After resting at home for a few weeks she became much better and returned to the office and tried to straighten out the books. She soon became badly upset, however; thought that she was going to be lost; preached and prayed and was hard to control. Finally she had to be committed to the Hospital.

M. R. was always queer and not like other children. All of his life he has been seclusive, easily excited and easily influenced. He blundered a great deal and made mistakes easily. He did not learn as well as the other children at school, but had a wonderful memory, especially for statistics. Four years ago a mental breakdown occurred. At that time he began to mix up his language and became greatly excited. He was going to do great things for his mother. After the excitement passed away he was more or less depressed. He got better and was able to work. Two years ago he accepted a position as a stenographer and typewriter in a town near his home. After a short time, however, he went to pieces and was found wandering around the streets and had to be imprisoned until his relatives could take him home. A year ago, he became very much excited; was restless; had a tendency to wander away from home; lacked application; was addicted to petty thievery and was silly in speech and behavior and mentally dull. He became so bad that it was necessary for him to be confined to a Sanatorium and later to the State Hospital. Since he has been in the Hospital he has been silly in speech and behavior and has shown rather marked agitation. Such cases might be quoted indefinitely had I the time.

Many patients who suffer from dementia præcox have been exceedingly precocious, in fact, have been the wonder of the school and the pride of parents and teachers, who have been responsible for their mental breakdown, urging them on until they have used up their mental and physical strength. These children might well be compared to a "straw fire," which burns brilliantly for a minute and all is over. Frequently they do surpassingly well in the high school, but break down in college, having used up all their mental force in the primary school.

And now a word as to prophylaxis. We, as physicians, have a tremendous responsibility resting on us in our relations to childhood. The physician, as no other, knows the defects in the mental history of a family. He knows of the hysterical mother, of the insane father, of the idiotic uncle or the epileptic aunt, and he also knows the general mental characteristics of the child and to him is given the opportunity to exercise

that rarest of gifts, "clinical tact," by the proper exercise of which he may be able to avert that awful catastrophe, a mental breakdown. It is of special importance for the physician to watch over carefully the children of neurotic parents and all those who have had a bad mental heredity. Any falling off in school work should be investigated. Not only should the child be examined for adenoids, for this is a much more frequent cause of mental backwardness than is generally recognized, but defects of hearing and sight should be sought. The life of many a child has been made a burden because of these defects, and they stumble along, a source of worry to their teachers and a sorrow to their parents. A great number of these children do not learn because they are physically handicapped. When these defects are remedied, they can easily take their proper place with their fellows. Persistent headaches are also an indication that something is wrong and in such cases the fault may be in the child or in the parents or in the school. When a request comes to the teacher to relieve a child from certain studies it is always best to have the physician examine that child to find out what the cause of the trouble is and to correct it if possible.

Generally speaking, the three most prominent symptoms of a so-called nervous constitution are: "The lack of emotional control, over sensitiveness and motor weakness." Therefore, when any of these occur in a child he should be carefully watched. If he does not do well in school; is nervous; seclusive; irritable; easily tired; takes no interest in his studies and in the ordinary pursuits of boyhood, it is best to take him from school, make him live out of doors and do things with his hands. Sometimes it is best to give up a college course and let the boy take up farm work or mechanical work. The agricultural and mechanical courses now given in some schools are excellent in such cases. I am firmly convinced that many a boy has been ruined by pushing him through college who could have been saved had the early signs of a mental breakdown been recognized.

The age of puberty is an especially dangerous time in the life of the child. New feelings, new hopes and new ambitions arise. Formerly the child has existed as a mere animal, now he lives as an individual and restraints are more or less set aside. This is a period of fantastic dreams. Self-criticism and self-esteem are marked. At times he is moody and broods. This instability, occurring as it does, coincidentally with school life, is especially trying, and the combined demands frequently prove too much of a tax and a breakdown occurs. It is here especially that the physician in conjunction with the parents should come in. The sexual question should be explained and robbed of its mystery and prevent the vague thinking so prevalent at this time. The child should be made to feel that there is some one who understands him, some one to whom he can go for advice and to whom he can unburden his soul. At this time, children are perilously near the border line between sanity and insanity. The mentally strong are able to weather the storm by themselves. The mentally unstable, unless a helping hand is extended, succumb. The boys take to debauchery and the girls may go astray, and many of them at last end their days in an insane hospital, or, if they do not do this, are only able to take a small part in life's battle on account of a mental impairment. Surely as physicians it is well worth our while to do our utmost for these children who need us so badly.

In conclusion, I wish to say that everything should be done for children to make them good physical machines, but they should be taught how to guide and control these machines. Everything should be done to teach children self-control; to teach them to bear disappointments and hurts without whimpering. False sympathy should be tabooed. They should be taught self-reliance; to do things, not to think of doing things. Brooding and introspection should be discouraged. Games which require decision and action should be played. Let them rub up against their fellows; find out their defects as well as their good points. Their play instincts should be cultivated, because they develop the child physically and mentally and are also developers of character. The play grounds were a most important factor in the Greek education which produced the highest type of manhood the world has yet seen. Ex-President Roosevelt said, in speaking of the ten million dollar play-grounds of Chicago: "They are the greatest civic achievement the world has ever seen." This is an age of commercialism in which everything is counted in dollars and in cents. Herbert Spencer has well expressed it when he says: "The raising of a first rate bullock is an occupation on which men of education willingly bestow much time, inquiry and thought—the bringing up of fine human beings is an occupation tacitly voted unworthy of their attention." This is a short-sighted policy of ours, for only in so far as manhood is developed will our nation prosper. Goldsmith has pertinently expressed the condition when he says:

"Ill fares the land, to hastening ills a prey,
Where wealth accumulates, and men decay."

Studies in Amebiasis, with a Report of Forty-Two Cases.

By Wm. Allan, A. B., M. D., Professor of Pathology, North Carolina Medical College, Charlotte, N. C.

I wish to discuss briefly some of the points in the problem of amebiasis on which there is urgent need for more light. Some idea of the importance of this problem may be gained from the fact that out of 65 cases of intestinal parasitism, encountered by the writer within the last two years, 42 have been cases of amebiasis.

In the first place do the amebæ found in the soil and in standing fresh water supplies become pathogenic when taken into the body? From the occurrence of an outbreak of 9 cases within two weeks in five families all using the same ameba-infested well, which recently came under our observation, (1) and from the work of Captains Nichols and Siler (2) of the Army Medical Corps, in relation to pellagra at the Peoria State Hospital, it would seem that the amebæ commonly found in water can and do produce amebiasis.

Is the same thing true of the amebæ found in the soil? Out of five specimens of earth, taken from vegetable gardens in different parts of Charlotte, two showed amebæ. These were easily grown out in 1% alkaline bouillon, although so far we have not been able to grow amebæ from infested stools or water. If amebæ from the soil can cause amebiasis, would it not be well to lay more stress on the washing or cooking of raw vegetables in the South, in view of the prevalence of this parasite? Why should tropical fruit be looked on with suspicion? Fruit is acid and amebæ have refused to grow for us on fruit or any other acid medium. Is there a specific pathogenic ameba, the Entameba Histolytica, as Schaudinn (3) claimed? If so, what becomes of it outside of the body? Aside from the cases due to water, or soil, or contact infection (4), it would seem that, if the pathogenic ameba lies encysted and does not multiply outside the body, then we must assume an enormous amount of pollution of our food or drink with human excrement to account for the large per cent of the remaining cases. Even in the Carolinas, where the soil pollution is all but universal, it seems improbable that most of our cases have become infested from food or drink contaminated with human feces. If the Entameba Histolytica does multiply and thrive outside of the human body, where and under what conditions, and how can it be differentiated from other amebæ occurring in nature? We are sorely in need of further knowledge concerning the ameba family, as without such knowledge concerning the ameba family, as without such knowledge prophilaxis is impossible.

In the second place, it has also been stated by Schaudinn (5) that amebæ occur in normal stools—meaning normal individuals. Admitting that this condition may exist temporarily at times, it has never been our good fortune to find that those people, who constantly harbor amebæ unknowingly and without symptoms, are normal. In a recent series of differential blood counts on 100 supposedly normal individuals, a certain number (about 3%) were found to be harboring amebæ unsuspectingly. After careful investigation, we could not consider either these individuals or their stools normal. They were not able to produce a formed stool except during the day or so following a purge or following three or four spontaneous movements in a single day, which were invariably attributed to some error in diet. Their stools are alkaline, and they generally have a moderate eosinophilia and are to some degree neurasthenic. From our present limited experience we are obliged to hold to the opinion of Musgrave and Clegg (6), as against that of Schaudinn, that all amebæ constantly found in the stools are pathogenic and that everyone constantly harboring amebæ will sooner or later show unmistakable signs of amebiasis.

In reviewing the 42 cases seen by us since April, 1908, we are struck by the following facts:

1st. That 12 have died, a fatality of 28%.

2nd. That 16 of the 42 cases gave no history of frequency of bowel movements. This point was long ago brought out by Futcher (7), but has not been sufficiently emphasized. These are the cases that are particularly liable to be passed with a blanket diagnosis of neurasthenia. (8).

3rd. That 10 out of 16 cases had bald tongue, which we believe to be indistinguishable from that of pellagra.

4th. That of 25 cases in which the hemoglobine was estimated, in 6 it was above 80%, and 19 below 80%; in one case the hemoglobine was below 10%. Anemia seems to be as constant and as a rule as severe in amebiasis as in anchylostomiasis.

5th. That in making a routine blood examination the presence of a moderate eosinophilia has repeatedly directed our attention to the intestinal tract, with the result that amebæ were found in the stools. At present we cannot agree with the best authorities, who without exception, we believe, state uncomplicated amebiasis does not show eosinophilia. Out of 29 cases in which differential counts were made, 14 showed eosinophilia of 5% or over, two between 4% and 5%, and 11 below 4%; one case complicated by Ascaris Lumbricoides

showed 17%, and one case complicated by hook worms showed 5 1-5%. In one case of combined amebiasis and anchylostomiasis the removal of the hook worms caused the eosinophilia to drop from 10% to 5% in eight months. This leads us to believe that a moderate increase in the eosinophiles will be found in over 50% of cases, if not less than 500 white cells be counted.

6th. That since amebæ can be grown in alkaline bouillon, the reaction of amebic stools may prove of interest. In 14 cases in which this point was noted, litmus paper showed 10 alkaline, 2 neutral, and 2 acid; unfortunately these acid stools were not tested with phenolphthalein. In this connection it is interesting to note that out of 35 cases, Trichimonas Vaginalis was present in 19; this observation leads us to disagree with the statement of Broun (9), that this organism, "lives—not in normal mucus, but in mucus of acid reaction". The presence of monads in such a large per cent of cases of amebiasis, we believe, calls for further investigation as we have not found them in any thing like so large a per cent in any other class of cases.

In three cases a diagnosis of abscess of the liver was made; two of these cases left the hospital within 24 hours and were lost sight of; the third case showed abscess at autopsy (10).

Because of the wide variance in character of the many substances recommended for the destruction of amebæ, when applied as colonic irrigations, we determined to try out their effects as observed under the microscope, on amebæ in stools and from cultures. Only some preliminary work in this line can be reported at this time. Reagents causing at least a temporary loss of motion in amebæ may be classified under three heads—protoplasmic poisons, acids, and dessicating agents.

The action of quinine sulphate up to 1 to 1000 and that of powdered ipecac in solution with sodium bicarbonate, was slow and uncertain. After treatment with ipecac, locomotion reappeared in 45 minutes.

The action of citric acid (lemon juice and lime juice) was also slow and uncertain.

The action of coal oil (recommended by Hanes of (11) last year) we were unable to determine, as it will not mix either with stools or with bouillon.

Rochelle salts in 5% solution stopped motility sooner than any of the preceding reagents due partly to its acidity and partly to its dessicating effect.

Magnesium sulphate in strong solution not only instantly stops all motion on the part of the amebæ, but dessicates and shrivels it beyond recognition; whether or not it can be resuscitated again with normal salt solution, we have been unable to determine. We irrigated a number of cases daily with a gallon of 8 per cent magnesium sulphate but were unable to see that this was of any special advantage. On bathing amebæ in accurately prepared solutions of this reagent, it was found that motility finally ceased only in about 25 per cent to 30 per cent solutions and that even considerably stronger solutions were required for instantaneous dessication. Magnesium sulphate does not irritate the bowel, but whether or not strong enough solutions can be introduced to destroy the ameba without injuring the mucous membrane, remains to be seen. We are unable to say that a heavy solution is superior to normal salt solution as a mechanical remover of the organism. But whatever the effect produced on the amebæ in the lumen of the bowel, it has been only too evident that those within the intestinal wall have been permanently damaged.

We have not been entirely successful in using magnesium sulphate to produce stools for the purpose of diagnosis, as recommended to us by Dr. Walter A. Glines of Colon Hospital. At times the amebæ are rendered sluggish or even motionless. It would seem that a watery purge with some drug that has no direct action on the organism would be better.

In consideration of the high praise given ipecac in the treatment of amebiasis by Sir Patrick Manson, we gave from 30 to 60 grains daily for two weeks in 8 cases. Ipecac may be given rubbed up with mutton suet, in capsules, in lemon juice an hour after meals, generally without difficulty, or it may be given coated with salol. Except that it sometimes set up diarrhea, it has not seemed to influence the clinical course of these cases. If given in larger doses, less frequently, over a longer period of time, possibly its action may be more beneficial.

Of the 12 fatal cases, 7 died within ten days after first being seen by us; 3 refused treatment and died in from three weeks to to four months; of the two fatal cases that took treatment, one was complicated by an infected ovariam dermoid cyst and died in three weeks; the other improved sufficiently to later pass through an attack of pellagra, but after nine months died of nephritis.

Of the 30 cases still living, we had an opportunity in 20 to give a fair trial to medical measures as we understand them—that is, rest in bed for two weeks at least, on liquid or light diet without residue, with daily colonic irrigations, with or without cathartics or ipecac by mouth. In every case there was prompt relief from distressing symptoms. In two cases diarrhea returned

within two weeks; in 18 cases the relief continued for from 3 to 15 months. Not a single case has gained materially in weight, and we are confident that not a single permanent cure has been effected. Hence we are forced to conclude either that our treatment has been radically defective, or that medical treatment of amebiasis is only palliative and can hold out no hope of a permanent cure

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Chloroform.*

By G. T. Sikes, M. D., Grissom, N. C.

In the outset of this short paper I wish to inform my hearers that it does not in any way claim to be a pioneer in thought nor a discoverer in any new fields of application, but simply resaying what has been before said. Chloroform is a colorless transparent fluid, neutral to test paper, with a specific gravity 1.476, an exceedingly hot burning sweetish taste, of a pleasant odor and very volatile. Its discovery, like many others that was destined to reflect great honor and be of much use to man, has been jointly claimed by Guthrie of Sackets Harbor, New York, and Souberian; each of the year 1831. It was not however successfully applied until 1847 by Simpson of Edinburg, at the suggestion of Waldie, a chemist, as a substitute for Sulphuric ether in surgical operations. It was only the year before that Sulphuric ether was born into successful application by Dr. Charles T. Jackson of Boston, Mass., and at the same time by W. T. G. Horton a dentist. The chemical name is Trichlormethane or Hethyl Terchlorid, C. H. C13. It appears in commerce as Chloroforum purified and Chloroforum vanale. The pure Chloroform which is suitable for anæsthesia should possess all the properties before enumerated and should be non-irritating when inhaled, and evaporate completely when placed on a watch-glass, leaving no residue or odor. It is made by the action of chlorinated lime on methyl alcohol. The impure is about 98 per cent chloroform and two per cent impurities, and is unfit for administration. It solidifies at very low temperature, melts at 71° and boils at 61°, burns with a greenish flame. The Medicinal uses of chloroform are varied and extensive, being used internally in combination as an anodyne and thought by some to possess solvent properties on renal calculi, and is valuable in true cholera and similar diseases of the stomach and bowels. As an injection deep on the sciatic nerve I know of nothing superior, and as an ingredient in various anodyne and rubifacient liniments it forms an important part. The most valuable and extensive field of usefulness is found in its anæsthetic properties, in this sphere standing second to none, but somewhat restricted in the extent of application on account of the uncertainty of its effects, yet in the the hands of some operators it has always behaved well; however the most brave and successful safeguard the patient with ample care and scrutiny against any defect of the heart, and even in those where nothing is observed it is deemed prudent on the part of the surgeon to forearm himself by the judicious administration of some reliable heart tonic. No one foreknows the resisting power of the patient, but all know that benefactors may be transformed into foes and agents of great good distorted into missiles of death. This knowledge has led the way to much investigation and many warm discussions among surgeons and pharmacologists, not as to the fact but as to the mode. So distinctly definite were the claims of men that they resolved themselves into two classes or schools, one led by Syne, of Edinburgh, which asserted that death from chloroform was due to the failure of the respiratory function, and to this our attention should be directed during the administration of the drug. The other known as the London school asserted that death was due to cardiac failure, and this was the function to be guarded. These rival opinions extended to the quarters of the earth and met the chords of responsive inquiry for truth, and this opened the avenue to the soul of a benefactor in the person of the Nizam of Hyderbad, who under a grant of five thousand dollars sent out the Hyderbad Chloroform Commission, the first investigation returned with its report cor-

*Read before the North Carolina Medical Society, June, 1910.

roborating the theory of Syne, that death was due to respiratory failure, this evoked such a whirlwind of criticism that His Highness threw his means into the channels of inquiry and sent the second commission under the leadership of Sir Thomas Brunton, of London, who was a teacher of his home school—the cardiac theory, but returned a convert to the respiratory theory, and this likewise elicited a great weight of criticism by clinicians and pharmacologists, of England and America, and still the world was in doubt and confusion; but history both Sacred and Profane teach us that at the opportune time the Lord gave us law through Moses, song through David, and as we come to modern times, land through Columbus, but it was left to the skill of H. C. Wood and H. A. Hare to publish to the world and by the corroboration of Mac. Williams of Glasgow prove that the danger in the use of chloroform was due to the depressing and at the same time dilating influence upon the heart, which theory was simultaneously concurred in by Gaskell and Shore of Cambridge University, England, who went a step further and verified to their satisfaction that the primary effect was great depression of the vasomotor system. This depression of the nerves resulted in a fall of blood pressure which was attributed by some to cardiac failure. As with many other discussions in Medicine the real truth probably lay between the antagonistic opinions, and possibly in a majority of cases is not due to either of these causes: but more frequently to vasomotor depression whereby the arterioles being relaxed allow the blood to pass too freely into the great blood vessel areas which exist in the capilleries and veins, and as a result the patient is bled into his own vessels as truly and as effectually as if into a bowl, and succumbs without the body having lost a drop of blood: and this sounds no less true than poetical when we remember that the net work of capillaries and veins will hold several times the normal amount of the blood. It is a well known fact that complete relaxation caused by chloroform results in failure of all the vital functions not because of a paralyzied heart or respiratory center, but by starvation, the blood having gone to the relaxed capillaries and widely opened veins. By the tracings of the blood pressure under the influence of chloroform we find the pulse becomes weak, weaker and ceases, but still the heart acts or works like a pump in an empty well. It is this condition that prompts the operator to invert his patient so as to utilize the law of gravitation and refill the heart; and on the same principle the sitting posture to less favorable for the drug.

Recognizing the susceptibility of the vasomotor system to the influence of chloroform has taught operators the value of beladonna or atropine as a stimulant preceding the anæsthetic. The popularity of this great remedy is sectional to a certain extent being more popular in the Southern and Western part of the United States than the Northern and Eastern parts. The contra-indications are observed with the same care every where, and no one would venture the use of chloroform in cases of fatty or dilated heart nor in those with a known idiosyncrasy nor in so-called lymphatic persons with over growth of lymphoid tissues, in this latter class it is particularly apt to end with sudden death. As to relative numbers men are much more subject to unfavorable results than women the ratio being about six to one: this may account in part for what seems to be the most unwarranted use of chloroform, that is the promiscuous use of it in labor, and while I am not inclined to pluck one of the just laurels nor silently stand by and see it shorn of its glory, yet a drug of such power deserves to be so guarded and restricted in its use as to confine it to the channels of need, but if the doctor suborns his judgment to the demand of the patient without a manifest need he has lowered the dignity of his profession and jeopardized the rights of his patient. Or the physician who enlarges or to do so his field of action by making promises beforehand to cater to the unintelligent wants of his patient has attempted to sacrifice honor he never had, and exposed his character to the world.

A Plea for Patience During the First Stage of Labor.*

By James E. Patrick, M. D., Farmville, N. C.

In presenting this paper, no attempt will be made at any innovation on this subject. So much has been said on the Pathology of pregnancy; its complications and sequelæ—Puerperal Eclampsia, operative interference, etc., that the writer is constrained to look upon the brighter side of this subject, the *physiological* side; if you please.

It seems to be conceded that the Medical man has jurisdiction over this cavity under consideration, as long as he keeps out Pathological conditions, though it must be granted this is dangerous territory over which to hold dispute.

Labor may be fitly set to a drama of three acts,

First Act; consists in laying the plot, anticipating the apparance of the star and the ovation tendered him in the second act—it having been about two hundred and eighty

*Read before the Wrightsville meeting of the North Carolina Medical Society, June, 1910

days since the first "ovation" given in this drama.

Second Act; is one of more strenuous action, introducing brilliant plays, and it may be some intrigue necessary; ending with the announcement of the Star, as he is ushered in, past narrow prison walls and out by way of the Superior and Inferior Straights. Upon his "debut" he is "encored" for a solo, to which he usually responds.

Third Act; is only an after glow of lesser interest followed by the last drop of the curtain. A well laid plot with good staging is the secret of success in the play. It is likewise essential in this first act to a successful termination of this initial drama of life, in which each of us have once been the star.

The first stage of Labor is too often regarded with indifference or unconcern, because the attendant has so little to do but watch and wait. In a normal case of confinement, watching and waiting is the principal business, though ofttimes the hardest to do. In most cases no assistance is necessary and meddlesome interference is too often indulged in, in the interest of the accoucher. An eminent Author and Obstetrician of one of the Philadelphia Hospitals says, "A physician's duty is one mainly of inaction and non-interference * * * It is well, therefore, to recollect that Nature alone in the majority of cases, with very little artificial aid, is capable of terminating safely the birth of the child; but at the same time, it should not be forgotten which must be immediately recognized and promptly dealt with". Again from our own Southland, we hear one of equal eminence and frankness, a Medical University Professor, in a paper on this subject, say, "A normal case really needs no Physician; the only need for him is to detect early any complications or abnormalities which may be present, and treat them at the proper time and in the proper way. If this is always done, the maternal and fœtal mortality will be practically nil".

When called to attend case of Labor, the first thing is to determine whether Labor has actually begun or not. This is not always as easy as some authors would have you believe. Do not jump at a conclusion here. The "show" which is usually considered infallible as an external sign, is sometimes seen several hours or even days before the cervical canal is obliterated and dilatation advances with recurring pains. The most reliable sign is found by vaginal examination, the obliteration of the cervical canal and dilatation of the os. Cases are reported however, of finding the os dilated several inches and membranes bulging into the vagina, which remained unchanged while patient walked about the house several days before pains returned. Having found labor actually begun, and have made diagnosis of presentation, the anatomy of the parts, the elasticity or rigidity of the cervix, all the while noting the character and frequency of the pains, let us now observe the results upon the advancing part. In the meantime the question is asked, "How long will it be?" This cannot be answered safely without a good loop-hole in your reply. History of former confinements is not of much value though usually so considered. A good stereotype answer is, "That depends upon the pains and how well the patient uses them or yields to them". An attendant should never leave when in doubt of presentation! We have heard how "Dr. John Doe" left, saying he would return in plenty time, but the baby was born before he was hardly out of sight. When, however, you can assure yourself that your services will not be needed for a given time, do not sit by the patient or hang around indefinitely. Your presence adds anxiety and concern to the woman who is wondering what you will do next, whereas nothing you do relieves her. Set time for return and assure her that you will not be needed before that, and proceed to get a nap or make other calls.

Parturition is a *physiological*, a *natural process*. The best skill of the attendant, perhaps, lies in his knowledge of what is nature and which way she is leading in a given case. This can be much more easily ecognized in the second stage than in the first, but its importance lies in early recognition and treatment. The duty of the accoucher is more than that of a surgeon awaiting the opportunity to begin an operation. The tactful attendant is ever mindful of the mental condition of his patient as well as the material surroundings. His easy, confident, but sympathetic demeanor often proves his best sedative. Never allow your patient to think you are in a hurry. She feels as never before, probably, that her life is in your hands. What ingrate can fail to see the confidence and deep gratitude of the newly delivered mother?

It is not the purpose of this paper to overlook or decry the importance of prompt and speedy action on the part of the attendant whenever conditions demand it. But let us not be too ready to interfere when only minor assistance is indicated. Gynecologists are busy doing repairs, hysterectomies, etc., which are the results primarily of a hurrying, busy, attendant who could not wait. We may sometimes assist dilatation with the fingers when the cervix is low enough to reach well. Instrumental dilatation, the various types of dilating bags,

cervical incisions, etc., should be resorted to only as conditions demand it. Let bag of waters complete the dilatation if you can. *Never give ergot in the first stage!* Its effects are too uncertain and short-lived. Quinine, ten to twenty grains, by mouth or double the quantity per rectum, is indicated to stimulate weak and ineffective, long continued pains. The writer has never seen any alarming hemorrhages from its use. We are too often tempted to use echolic remedies and hasten a process for which nature demands time and patience—the gradual dilatation of the cervix. The importance of these precautions against cervical lacerations, is emphasized by the discussions before the Society upon the subject of cancer. When it is remembered that the most important predisposing cause of cancinoma of the cervix is laceration, how important it is that we guard every avenue of approach of the insiduous foe.

Most frequent cause of spasm of the cervix is general neurotic condition of patient. Edges of cervix are found rigid and thin, This is found especially in multiparae as a result of previous laceration or cervical inflammation. Again, this condition is observed in women who conceive in life. These cases demand sedatives, medicinally and psychologically as well, sometimes. Give Chloral Hydrate, ten grains every hour as indicated. But we are learning to depend less upon drugs for specific action, and learning there is something in suggestion—even to the medical man. Some one has said, "Surgery is more an art than a science, but medicine is more a science than an art". However near the truth this may be, we do recognize there is much of art in the practice of obstetrics.

The question of waiting in a given case of Labor is influenced too often by the fact that compensation is not always commensurate with the time employed. This is unfortunate, indeed, but it does not excuse a man in a hurry, but who has license to subject his young patient to risks which may cost her months or years of ill health or invalidism. If we accept a case of confinement, let us be true to the grave responsibilities incident, and not excuse ourselves on the ground that she has a trifling husband or that the pay is doubtful. If we could have the assurance from our patients that the servant gave his lord in the sacred parable on forbearance, no doubt it would be less irksome to wait when, sometimes "Duty seems a load". Let us hope to hear from these helpless patients, "Have patience with me, and I will pay thee all".

Danger Due to Substitution.

Hardly another of all the preparations in existence offers a wider scope to imposition under the pea of "jnst as good" than the scientifically standarldized Eucalyptol.

The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proved injurious upon application, the firm name of Sander & Sons is llicitly appropriated, the make-up of their goods imitated and finally the medical reports commending on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit.

This fraud, which was exposed at an action tried before the Supreme Court of Victoria at elbourne, and others reported before in the medical literature show that every physician should see that his pati ent gets exactly what he prescribed. No "just as good" allowed.

Flexner's Report of the Carnegie Foundation on Medical Education.

When one reads the report of Abraham Flexner on the condition of the medical schools of the United States, he hardly knows what he wants to do most. Laugh at Abraham or flay him as unmercifully as he has scored nearly all the medical colleges in the United States and Canada. The report is so manifestly unfair and unjust that we doubt if it has any lasting or permanent good. For fear there has been a united effort on the part of those connected with the teaching force of the medical colleges, as well as those who are not, to improve in every way the colleges of the country. The preliminary education necessary for admission to all reputable schools has been made much higher and more thorough in every way and the length of time the student must spend in college before coming up for his degree has been increased to four years of eight months each, and the method of teaching made much more practical and comprehensive. Nearly all States in the Union have "State Boards" before which the embryo doctor must appear and pass his final examination, before he is allowed to practice medicine. All this seems to have escaped the notice of Mr. Flexner. It is quite likely that changes for the better could be made in all or practically all the schools of the country, but when one reads this "screed" of Flexner he feels a sense of beligerency that is difficult to suppress. He seeme to see no good anywhere. Indeed, it would be difficult to conceive of a reported investigation in which the truth was so much distorted, facts suppressed and downright prevarication (to use no stronger term) indulged in than this. As a piece of monumental impudence it certainly stands without a peer.—The American Medical Compend.

Charlotte Medical Journal

Published Monthly.

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CHARLOTTE, N. C.

THE SCOPE OF MODERN MEDICINE.

Since the days of Hippocrates the aim of medicine has broadened a great deal. To the question "Am I my brother's keeper?" we answer very heartily, Yes. The modern physician seeks to prevent as well as cure, and regard the former fully as important as the latter, although it means reduction of income to him. To prevent disease, however, the physician is forced to be a man of affairs, for the prevention of disease involves other things besides medicine. He must interest himself in the arts and sciences of everyday life. In other words, commercial life in every branch of it. He must trace disease to its source and not just be content with the bacteriological cause of it Bacilli abound everywhere but the healthy human being is quite able to resist their invasion so far as harmful effects go. It is the scope of modern medicine to see that the human being is kept up to and above the bacteria resisting point. This can only be accomplished by supervising the daily routine of the human animal from birth to death. One might almost say from before birth, because modern medicine is interested in the preparation of future mothers for their natural function. Modern medicine seeks to limit the hours of employment of both sexes so that future offsprings may not suffer from the acts of inhuman and slavedriving employers. It would absolutely prevent the employment of the gentler sex in stores, factories, and offices if it could, but as yet the public is not sufficiently educated to the importance of this. Therefore, as it is, modern medicine works for the betterment of the places where either sex may work, insisting that the places of employment be clean, light and airy. This is tracing disease to its source, because the reverse of the demands of modern medicine is what makes the human being vulnerable to the invading hordes of bacilli. Modern medicine is not content to treat the well deserved results of immorality, but seeks to educate the public in such a way that these diseases will be lessened, because the public will have learned the lesson the modern physician is endeavoring to teach them. Tuberculosis is another of the scourges that human flesh is heir to that the methods of modern medicine is overcoming. The scope of modern medicine is broad indeed. Nothing that is detrimental to human health is safe from its intrusion. Nothing can swerve it from its path of duty. Money kings who have attempted to bribe it to overlook certain things, the correction of which would reduce dividends some, have found another something money cannot buy. Modern medicine demands the best that is in those that would practice it, expecting them to forfeit their own lives to their profession if duty calls upon them to this extent. Recent examples of this demand, and how it was unflinchingly met, were the heroes of the yellow fever investigations conducted in Cuba several years ago by the United States government. Those who survived were as brave as those who died and deserve as much praise. The investigation of the "sleeping sickness" plague of Africa is even a still more recent example of this kind. As yet the general public does not realize the extent to which modern medicine seeks to guard and protect them. Too many still believe in the old fashioned idea that the doctor is only of value in time of sickness. It is for us to make them realize that the doctor of today wants to be on guard constantly over his patients. To prevent them from getting ill if they will allow it; to treat them when they are so unfortunate as to need his services in this way.

INDIGESTION.

These few words are a plea for a more definite meaning for the diagnosis of indigestion in your practice. Like the diagnosis of rheumatism for various vogue pains elsewhere, this diagnosis of indigestion for almost any kind, class, or sort of pain in the abdominal cavity has been made to cover a multitude of other conditions which the physician had no business to overlook, and would not have, had he gone to the trouble of taking a careful history of his case and of making a thorough examination of the patient in general. In his student days his instructors would not have allowed him to be so "slipshod" in his methods, and during his interneship in the hospital his superiors of the attending staff would not have permitted him to treat patients in the hospital wards on such a snap diagnosis. Therefore why fall into such careless, dilatory methods in one's private practice? The excuse of being pushed for time is an unacceptable one, because each patient pays you to take the necessary time that his case requires. When you come to the conclusion that a patient has indigestion it is up to you to decide whether that indigestion is a simple, straightforward case or only a symptom of something more serious. Is it a gastric indigestion or an intestinal condition? If it is a gastric affection is there a hyperacidity or is there a hypo-

acidity? And which ever it is what is the underlying cause of it? This underlying cause may be found a long distance from the stomach. It might be the eyes need attention, it might be a general anemia or it might be something else. That is for you to discover. Or the underlying cause may be in the stomach itself due to atony, cancer, ulcer, dilatation or one of several other conditions. To treat all cases of gastric indigestion alike and as arising from the same cause, or to consider them all as simple cases, is absurd. And right here one might state also that in most cases pepsin medication is not good therapeutics either. Your physiology book will tell you why. In dealing with a case in which you have decided the trouble is intestinal you have again the same problem confronting you as is mentioned above. Is it simple intestinal indigestion that you have to deal with or again is this intestinal indigestion merely part of a symptom complex? Also what is the underlying cause? Again one must not only consider the intestinal tract proper but the body general. It may be the liver, the pancreas, or other organ at fault or, on the other hand, if the trouble is in the intestinal tract proper, cancer, ulcers, strictures, chronic appendicitis, or some other cause may be found for it. With everything carefully considered and excluded to the final diagnosis of simple intestinal indigestion again your therapeutic measures must be most carefully considered. Every case is not alike and therefore there is no universal cureall for intestinal cases no more than for gastric ones. In the majority of simple cases, both gastric and intestinal, the danger is over-medication rather than undertreatment. Don't make your cases worse and add greatly to your patient's discomfort by exhibiting too many drugs. Don't forget that diet regulation is a therapeutic measure of great importance and, in its proper use, of proven value. It alone cures many cases without the use of a single drug.

OPHTHALMIA NODOSA.

Very few who read this editorial on Ophthalmia Nodosa, otherwise known as caterpillar-hair ophthalmia, ever have seen a case of it, or having seen one perhaps will in all probability have failed to recognize it as such. And yet to certain practitioners the disease should be somewhat, at least, familiar, so that such cases should not be treated for something else to the detriment of the patient. A very interesting paper was read on this subject at the recent meeting of the American Medical Association held in St. Louis last June. It was read by Doctor Parker, of Detroit, who is well known as one of the leading ophthalmologists of that city. While the disease is not to be classed as among the more common conditions of the eye troubles, it is still somewhat important to know of it as it occurs principally in those who are in the woods and fields a good deal——and in the spring, summer and autumn every one of us who can be are in the country as much as is possible and even in the cities caterpillars can be found. As its name implies it has to do with the hair of the caterpillar getting into the eye and setting up there an irritation which may result seriously. The diagnosis is usually made with the microscope as your patient is usually unobserving and does not remember particularly any special contact with caterpillars or if they did would probably not attach any importance to it and would therefore not mention it to you. However, according to Parker the clinical picture is such as to arouse suspicion at once if you ever knew of this condition. At first there is excessive lacrimation, severe pain and some swelling. These symptoms subside after three or four days but the eye remains irritable with acute exacerbations. In one case quoted by Parker it was not until about three months had elapsed after the first visit that a most careful examination of the eye of the patient revealed the caterpillar hairs which meantime had become encapsulated and had to be curetted out. Had these caterpillar hairs been removed at the first examination no further damage would have been done, but as they were not they gradually worked their way into the cornea where they became encapsulated. The reason these hairs are so difficult to remove when once they have penetrated the cornea and become encapsulated is very easy to explain. A caterpillar hair examined under the microscope will show it to have little spike-like outshoots from the main stem. Once the hair is drawn into the cornea, root end first, these little spikes act as hooks and cause pain and lacerations if by picking up the end of the hair you attempt to draw it out in this manner.

A question arises if this trouble is really as rare as it is supposed to be, or is it only rare because the condition is really unknown to the average physician. Unfortunately but only too true is the fact that the medical colleges in the main slight ophthalmology as they do several other special branches of medicine. One of course is not so silly as to expect any medical school to turn out finished specialists in any or every branch of medicine, but the general public has got a right to expect that the medical graduate should know something about every department of medicine, and most important of all his own limitations in them.

To a doctor whose practice is going to be or is among people who through pleasure or necessity spend much time abroad in field or forest a knowledge of the eye condition known as "caterpillar ophthalmia" is really important as in this, like almost every other disease or condition in medicine, early diagnosis is of vast importance. Yet the writer ventures to say that this editorial will convey to many physicians the first knowledge that they have that such a condition exists.

THE VALUE OF A MICROSCOPE.

Every physician's office should contain a microscope as a part of its equipment and every physician should know how to use it. We will admit at once to save argument and time that in the olden times there were good physicians who practiced their profession and cured their patients without all these "gimcrack" accessories that the modern physician finds necessary. We will add, however, that stage coach traveling is not as popular as it was since the steam railroads came into vogue, and this despite the fact that stage coaches also arrived safely at the destination they set out for. When one thinks of the many uses in practice for a microscope it is puzzling why so few physicians have them and why still less, even including those that have them, know how to use them. The rapid advances in clinical pathology which has revolutionized many of our ideas concerning the normal and abnormal in the body fluids, secretions and excretions have all been made possible through the use of the microscope, and the benefit of these advances can only be secured by the physician who can use this instrument with some precision. This precision can only be secured by constant use. Constant use will only become a custom because you have access to a microscope. Following cases of the various anemias which in some of their causes are a menace to the South must necessarily involve having a microscope. One cannot expect their therapeutics for blood making to be a success if the causes of blood destruction remain. As these causes are microscopic in size the result of the crusade against them can only be determined by microscopic examination. To attempt to treat them otherwise would be foolish, or worse—a sheer waste of time. This is only one of the many uses of the microscope so far as the blood is concerned. One could go on almost indefinitely, however, to tell of other uses in this regard alone. In dealing with kidney and bladder troubles the microscopical contents of the urine are of vast importance both in the prognosis and treatment. The determination of sputum and membrane content will depend on microscopical examination and your skill in making it. There are laboratories, of course, where all these things can be done for you, but they charge well for doing them and the item of expense counts with your patients. Besides, sometimes time is a factor and the delay in sending the specimens and receiving the report is too long to be permissable. There are many things the physician needs less in his office than a microscopical outfit. Much can be dispensed with in the way of real "gingerbread" fixings pleasing to the eye of the to be impressed patient and the money thus saved put into a microscope. It will impress your patients also. It looks professional and up-to-date in your office outfit and when you have learned how to use it and understand what you see in it you have made a great stride toward "up-to-dateness" in your profession. No one wants a physician to depend on laboratory methods for everything, but the educated physician adds to his clinical means of diagnosis the great assistance of clinical pathology.

THE NEED OF POSTGRADUATE COURSES.

In the practice of medicine the profession needs men who will not look upon it as a commercial enterprise wherein great riches are to be obtained as a reward for one's labors, but wherein the greatest return is to be other than a money one. To practice it properly one must always be a hard working student both didactically and clinically. In many small cities and towns, no matter how good the intentions of the practitioner, the facilities are not at hand to allow him to carry them out. True if he has a "fat" pocketbook he can purchase many medical books and get together quite a library in this way. He can also be a subscriber to the various weekly, monthly and quarterly medical journals. This method of procedure may take the place of didactic lectures but no amount of money can buy clinical material in abundance where it does not exist and nothing can take the place of clinical teaching in medicine. Therefore, postgraduate courses are a necessity to the average doctor, especially in the smaller towns and cities wherein no public clinics are conducted, or if he is not connected with these clinics. Get all the book knowledge you can first, then verify it and make it indelibly fixed in your mind by seeing cases. Fortunate are you, indeed, if you can, at the same time, get the didactic and the clinical knowledge together, but only in large centres of population is this very apt to be possible. Strange as it may seem the average practitioner in the smaller centres of population has need to be a better

doctor than his fellow in the large cities because he has no eminent specialists in this or that at his elbow to help him out if he is puzzled at what presents itself in his practice. He ofttimes must confront the most baffling and serious conditions alone, making numerous momentous decisions on his own responsibility. Human life may hang in the balance—the pendulum to swing to yea or nay as his knowledge of what is confronting him is good or bad, as on this knowledge will his treatment be based. What is rare in the smaller communities because of the lesser number of people may be somewhat of a common condition in the larger cities. That is the reason why postgraduate work is not only advisable but really a necessity to almost every doctor. Even in the large cities many doctors take these courses because it is at the large hospitals and clinics only that many cases of the same kind can be seen at any one time and this is what counts in impressing the various conditions and the therapeutics of them on your mind. It is a duty you owe to your patients to be as proficient in your profession as you can possibly make yourself. The greatest leaders everywhere in our calling are constantly taking postgraduate courses at each others clinics. If they think this a necessity despite all their knowledge, don't you think that you also need this "brushing up?" Certainly every second year, and if possible every year, a doctor should visit the great centres of medicine and surgery, or as many of them as he can and see, hear, and examine all that is new to him since his last visit. Even, if possible, doing actual clinical work as an assistant in some clinic or hospital.

Dr. Abner W. Calhoun, one of the most noted physicians in the South, died at his home in Atlanta, Ga., on Sunday morning, August the 21st, after an illness extending over a period of several months.

In Dr. Calhoun's death Atlanta lost one of her best citizens. While his work was limited, he possibly did more charity work than any other one man in that city.

As an oculist his fame and popularity was nationwide, and patients came to him for consultation and treatment from every part of the country.

In his social life he was loved and respected by all who knew him. His manners were both unselfish and unassuming.

Dr. Calhoun was born in Newnan, Ga., April 16, 1845. His father, Dr. Andrew B. Calhoun, was, until his death, which occurred several years ago, one of the leading medical practitioners of Georgia.

Just two years after the close of the Civil War, Dr. Calhoun began the study of medicine under his father, and subsequently was graduated from the Jefferson Medical College of Philadelphia, with very high honors. He then returned to Newnan, his old home, and began the practice of his profession associated with his father. After two or three very successful years of general practice, he went to Europe to perfect himself as a specialist, having chosen the eye, ear and throat as his specialty.

When he had spent two years in Europe, he returned to his native State, and located in Atlanta, associating himself with the late Dr. Willis Westmoreland. A year or two later Dr. Calhoun severed his connection with Dr. Westmoreland, and began the practice of his special line of work alone. He was the first eye, ear and throat specialist in Atlanta, and probably in the South outside of New Orleans. Dr. Calhoun met with unusual success in his new field, and it was only a very short time until he was known not only throughout the South, but all over the country as a specialist of pronounced ability.

Notwithstanding the active life he lead professionally, he found time to write for magazines, and his articles were extensively read, many of them being translated into the foreign languages.

No matter how busy he was, he always found time to treat his poor patients with the same skill, that made his master eyes and hands great in the scientific world, that he did his more distinguished patients.

Shortly after he located in Atlanta, he became a member of the faculty of the Atlanta Medical College, and many of the successful eye, ear and throat specialists of this country today were pupils of his.

EDITORIAL NEWS ITEMS.

Dr. Wingate Johnson, of Raleigh, N. C., has moved to Winston-Salem, N. C., for the practice of his profession.

Dr. Johnson is a splendid young man and will do well in his profession. He is a graduate of Wake Forest College, Wake Forest, N. C., and of Jefferson Medical College, Philadelphia, Pa., and has taken also a special course at the University of Pennsylvania.

Members of the Calhoun County Medical Society, of Alabama, have begun a campaign with a view of securing the location in that county of the sanitarium for the treatment of tuberculosis, for which an appropriation was made by the last Alabama Legislature in compliance with a request by the State Medical Association.

Repair City Hospital.

The Huntsville City Hospital, Huntsville, Ala., closed on August the 10th, to permit extensive repairs, the number of patients having been reduced to one charity patient. The repairs have been contemplated for a long time and the hospital will be remodeled immediately. The institution will be put in first-class shape.

Dr. Newton Craig, who has been practicing medicine in New York City for the past several years, has recently located in Atlanta, Ga., where he will continue the practice of his profession, associated with Dr. Dunbar Roy, of that city.

While in New York, Dr. Craig was associated as ear, nose and throat instructor with the Polyclinic Post-Graduate School, and with the New York Eye and Ear Infirmary.

Dr. Craig was originally from Atlanta, and we feel confident that he will do well there.

Dr. Abner W. Calhoun, who died at his home in Atlanta, Ga., on August 21st, left an estate of $700,000. $100,000 was left to each of his four children, and the remainder of the estate, with the exception of a few legacies, was willed to his wife, his three nieces, and to his brother.

A part of the estate consisted of valuable real estate, and various large legacies were bequeathed to his children and relatives.

Dr. Oscar Dowling, of Shreveport, La., was appointed president of the State Board of Health of Louisiana on August 31st, to succeed Dr. D. Harvey Dillon. The appointment was made by the Governor of Louisiana.

Dr. Dowling was formerly a resident of New Orleans, and is widely known throughout the South. When he accepted the presidency of the Board of Health, he declined the appointment as surgeon of the Senses Hospital in Shreveport.

Deaths.

Dr. Wilson L. Heflin died at his home in Roanoke, Ala., on August the 13th as a result of a stroke of apoplexy.

Dr. Heflin was 82 years of age. He was born in Georgia but had lived in Randolph county, Ala., since boyhood. He was probably the oldest physician in his State, although for several years prior to his death he had not been actively engaged in the practice of his profession.

Dr. Heflin graduated graduated in 1851 from the Medical College of Georgia.

Dr. J. P. Watkins, a prominent young physician of Opelika, Ala., died at his home in that city on August the 18th.

Dr. Watkins was born in Camp Hill, Ala., 41 years ago. He received his college education at Southern University, Greensboro, Ala., and studied medicine at the College of Physicians and Surgeons, Baltimore, Md. He practiced at Society Hill, Ala., for five years after his graduation in medicine and then, in 1900, moved to Opelika, where he resided until his death.

Dr. W. B. Sanford, who was for a great many years a leading physician of Memphis, Tenn., died at Colorado Springs, Col., on September 2nd, of erysipelas.

Dr. Sanford graduated from the medical department of the University of Nashville in 1880, and had practiced in Tennessee since that time.

Dr. Tobie Lucien Lougarre, a prominent physician of Moreauville, La., died almost suddenly at his residence, on August the 28th. Heart failure was the cause of his death.

He was seventy-two years old, and was a pharmacist before he begun the study of medicine. He graduated in 1876 from the old University of Louisiana, now the Medical Department of Tulane University, and was until a few years since actively engaged in the practice of his profession.

Book Notices.

Nursing in Diseases of the Eye, Ear, Nose, and Throat. By the Committee on Nurses of the Manhattan Eye, Ear, and Throat Hospital, New York City. 12mo volume of 281 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, $1.50, net.

This book was prepared especially for the nurses in the Training school of the Manhattan Eye, Ear, and Throat Hospital.

The authors have kept in mind that the book is intended for nurses and not for physicians, and they have endeavored not to go beyond the capacity of the best educated nurses.

The binding of this book is attractive, and the printing, illustrations, etc., are of a very high grade.

It is with pleasure that we recommend the book to the nursing profession.

Dislocations and Joint-Fractures. By Frederic Jay Cotton, A. M., M. D., First Assistant Surgeon, Boston City Hospital. Octavo of 654 pages, 1201 original illus-

trations. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, $6.00 net: Half Morocco, $7.50 net.

The object of this work is to present to the medical profession, in as concise a manner as is possible, injuries to and about the different joints.

This edition will be of great value to the medical profession. Its numerous illustrations seem to be appropriately inserted and the book is in every detail thoroughly complete and attractive.

We take pleasure in recommending the book to both medical students and practitioners.

The Surgery and Pathology of the Thyroid and Parathyroid Glands. By Albert J. Ochsner, A. M., M. D., LL.D., Professor of Surgery in the Medical Department of the University of Illinois, Chief Surgeon to Augustana Hospital and St. Mary's Hospital, Chicago, and Ralph L. Thompson, A. M., M. D., Professor of Pathology in the St. Louis University School of Medicine, St. Louis. With 57 illustrations in the text and 40 full-page photos, four of the plates being in colors. St. Louis: C. V. Mosby Company, 1910.

The great interest that surgeons and pathologists are experiencing in the study and treatment of diseases of the thyroid and parathyroid glands seems to justify the production of the present volume, which has been planned to bring to the practitioner of surgery and medicine the result of a study of the work of those who have given much time to the development of this special field.

In the chapter on thyroid pathology the attempt has been made to simplify as much as possible our understanding of goitre.

This volume is in every sense complete in its construction. It is attractively bound, carefully indexed, and the illustrations are beautifully brought out.

It gives us a great deal of pleasure to recommend this book.

A Manual of Personal Hygiene: Proper Living upon a Physiologic Basis. By Eminent Specialists. Edited by Walter L. Pyle, M. D., Assistant Surgeon to the Wills Eye Hospital, Philadelphia. Fourth Revised Edition. 12mo of 472 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, $1.50 net.

The object of this book is to set forth plainly the best means of developing and maintaining physical and mental vigor.

There is concise, but adequate discussion of the anatomy and physiology of the parts under consideration throughout the book.

The contributors to this manual are: D. H. Bergey, M. D., J. W. Courtney, M. D., George Howard Fox, M. D., Joel E. Goldthwait, M. D., E. Fletcher Ingals, M. D., Walter L. Byle, M. D., B. Alexander Randall, M. D., G. N. Stewart, M. D., (Edin.), and Charles G. Stockton, M. D.

The book is beautifully bound, thoroughly indexed, and is in every way very complete, and will be of great value to the general public.

The Summer's-End Issue of Lippincott's.

Lippincott's for September is a characteristic and delightful number, maintaining all the excellencies of old-time reputation. The complete novel is "The Michief of Time," a beguiling story of English social life, by Dorothea Deakin, author of "Georgie," "Color of Rose," etc. The leading character is a plucky young girl who prides herself on the fact that whenever she has set her heart on a thing, she has always gotten it. She finally embarks on a bigger undertaking than she has ever before attempted, with a result that is not quite what she anticipated; yet she did not lose, nor can it be truthfully said that she was entirely successful. The reader must decide that for himself. The story sparkles with the witty dialogue and the amusing situations which have made this writer so popular in former fiction.

The short stories are as varied and entertaining a group as have ever appeared in one number of a magazine. Burton Egbert Stevenson, whose dashing cavalier romances, "At Odds with the Regent" and "The Cadets of Gascony," have endeared him to all fiction-lovers, contributes a dramatic tale called "Flaherty's Promotion." Will Levington Comfort, whose "Routledge Rides Alone" has been the most talked-about book of the year, is responsible for "The Woman or the Spider," a detective story of fine conception and unexpected ending. Anna Peacock gives us "The Inspiration"; Frank Lawrence, "The Silly Things"; and Karl von Kraft, "The Brown Paper Parcel." All are uncommonly good.

"Subiaco," by Dr. J. Orbaan, describes an extraordinary motor-trip around Rome, which will be of especial interest to those who have ever travelled, or who ever hope to travel, in Italy. Other noteworthy articles are "High Prices and the Goddess of Gauds," by Minna Thomas Antrim; "The Practical Value of Christian Science Optimism," by Louise Satterthwaite; "Coffee-cakes and Cupid," by Homer Croy; and "Eating, a Fine Art," by Ralph Bergengren. There are also some remarkable poems by David Potter, William Struthers, George Benedict, and others. "Walnuts and Wine," Lippincott's never-failing resource for a smile, does not flag in its abundance or in its excellence.

Abstracts of the Leading articles of the month.

Coagulation Time of Blood in Disease.—Addis, in The Edinburgh Medical Journal, says that the number of cases which he has examined is too small to permit of any wide conclusions being drawn as to the effect of disease on coagulation, but one striking fact is at any rate clear, namely, that in spite of extreme morphological, physical, and chemical alterations in the blood, the coagulation time may nevertheless remain normal. As regards the cause of those abnormities of coagulation which were observed in non-bacterial diseases, nothing can be said. The first step toward such knowledge would have to be the establishment of the constancy of these changes, or if they were inconstant, the search for the conditions under which they appeared. But in bacterial diseases it may be concluded that no marked effect is produced unless the organisms are actually present in the blood. When this occurs, the typhoid bacillus and the pneumococcus hasten coagulation, while streptococci and staphylococci delay it. Autoagglutination of the red blood corpuscles was seen in varying degree in all acute bacterial infections, except typhoid. It was most marked in cases of staphylococcal and streptococcal septicæmia and pyæmia. Moderate loss of blood has no effect on coagulability, but very large hæmorrhages are followed by an acceleration of coagulation.

Stone in the Urethra.—Morton (Bristol Medical Journal) reports a case in which a stone formed in the bladder around a piece of wood introduced into the urethra twenty-six years before. At that time the patient had had retention of urine, and in order to relieve himself he passed a kind of bougie, which he made of wood. The end of this broke off in his urethra, but, curiously enough, it relieved the retention. The broken off end of the wooden instrument remained, however, in the urethra. He has at times since then had difficulty with micturition, for which, when marked, he used to pass a No. 4 metal catheter. In doing this he declared he struck the wood, which really was the stone. A few weeks before coming under observation a sinus formed in the perineum, and Dr. Peake, his medical adviser, had opened an abscess in that neighborhood a day or two before the author saw him in consultation. A mass of induration was noticed more to the right than to the left of the perineum. The sinus and the abscess opening were in this mass, and pus and urine flowed from both. With considerable difficulty a No. 3 catheter was introduced into the bladder, and in passing grated upon a stone. The urine was purulent, but not offensive. A few days later the stone was removed. The mass of induration was very largely due to the size of the stone, which lay rather to one side of a pouched urethra. On cutting open the stone a piece of wood was found to form its nucleus. The cut surface of the stone measured approximately at its widest and longest parts one inch by two.

Treatment of Gastric and Duodenal Hemorrhage.—Finsterer (Beitrage zur klinischen Chirurgie) concludes an article on the treatment of hemorrhage from the stomach and duodenum as follows:

In a single acute hemorrhage internal treatment with complete rest of the stomach sdould be carried out; in chronic cases characterized by often repeated small hemorrhages operation should be done on account of the danger of grave anemia. Operation consists in excision of the ulcer when its location is favorable, as the pylorus or the lesser curvature. If excision is not possible, there is carried out either ligation of the bleeding vessel after opening the stomach or ligation of the arteries of supply to the ulcer after the method of Witzel. In cases of pylorospasm posterior gastroenterostomy is indicated in ulcer at the pylorus, and is also desirable when the lesser curvature is the seat of the ulcer. Gastroenterostomy is also a valuable procedure in small ulcer which does not involve the entire stomach wall, but is of no value in calloused ulcer. In high-grade anemia, in order to avoid the danger of general anesthesia, operation should be done under local or lumbar anesthesia.

Gonorrheal Arthritis—Vaccine Treatment.—Jack (Glasgow Medical Journal) mentions four cases, all of them improved. In three cases a polyvalent vaccine was used. The injections were controlled by observation of the opsonic index. Attention is called to the fact that autogenous vaccine is much more potent than any other form. Small doses at short intervals are advised rather than large doses at long intervals. The first three weeks of acute infection only very small doses, 500,000 to 2,000,000, are permissible. In gonorrheal arthritis, if the index cannot be obtained as often as desirable, routine injections of one to two millions may be given every three to five days, or five millions every five to seven days, or ten millions every eight to ten days. Larger doses are seldom advisable, and treatment should always be begun by small and carried on by gradually increasing doses. It is stated that the vac-

cine method of treatment compares more than favorably with other methods of treatment, even when the polyvalent stock vaccine has to be used.

Treatment of Infantile Paralysis.—Laquerriere (La Clin. Infant.) lays down the following: (1) At the onset during the febrile stage one remedy alone is of service—hydrotherapy practiced under the form either of tepid baths or refrigeration of the vertebral column by a bag applied to it. (2) In the succeeding weeks after the cessation of the fever, when the paralysis, at first general, becomes spontaneously localized to certain muscles, all fatigue and worry must be avoided so as to allow the medullary cells, which are simply inhibited, to recover their function, and so as not to over-work muscles which will recover by themselves. At this stage hydrotherapy in the form of warm or tepid baths, especially salt ones, and electricity by means of the constant current applied gradually, possess at the same time a tonic and sedative action which demands their employment to the exclusion of any other procedure. (3) In the stage of slow retrogression there is no fear of lighting up the medullary process, as the lesions are established and circumscribed. The general health must be attended to; sea or mountain air, warm salt baths, sea baths, sun baths, are the most powerful means of toning the organism. The nutrition of the affected limbs must be acted on by massage, passive movements, douches, the constant current, one pole on the limb and the other on the vertebral column. Articular deformities must be attended to by manual treatment, mechanicotherapy, and careful watching for faulty attitudes. Motility must be encouraged by electricity, gymnastics being rarely available for the wasted and weak muscles. (4) In the last stage, that is, three or four years after the onset, the muscles which have completely or partially recovered should be re-educated by simple or electrical means. Deformed articulations must be subjected to mechanico-therapy by ortdopedic apparatus or surgical means. Muscles still affected must be still subjected to electrical treatment or transplantation of tendons. (5) This treatment should be commenced as soon as possible; infants thus treated in the first weeks escape the worst consequences of the disease. But even a late commencement may be followed by considerable success.

The Diagnosis of Aortic Insufficiency.—Brelet (Gaz. d. Hop.) says that while the diagnosis of a typical case of aortic insufficiency is easy, atypical cases occur in which the recognition of the lesion is very difficult. Thus, the murmur instead of being blowing may be rough; it may be low-pitched and vibrating or high-pitched and musical. Occasionally it may be entirely absent. In this case the diagnosis must be based upon the size and shape of the heart, the location of the apex-beat, the Corrigan pulse, the capillary pulse, the double murmur in the crural space and other less constant manifestations of the lesion. Landolfi has recently described a new sign of aortic regurgitation which, while often absent, is almost pathognomonic if present. It consists of a rhythmic contraction and dilatation of the pupil independent of the will of the patient or of light. With each ventricular systole the pupil contracts, dilatine with the diastole. The explanation of the phenomenon is simple enough, the contraction of the pupil being due to the momentary engorgement of the iris during systole and the dilatation to its abrupt emptying during diastole. It is, in a word, the manifestation of a capillary pulse in the iris.

A less striking, but more constant sign, is the so-called "choc en dome" of Bard. This is best recognized by palpating the apex-beat by means of the ball of the thumb. In aortic insufficiency the apex of the heart can be felt to harden during systole in a circumscribed area of considerable extent, giving the feeling as though a ball or a dome-shaped mass were suddenly making its appearance under the palpating thumb. It is due to the ventricular hypertrophy and is most clearly felt when the patient lies on his left side.

Antitetanic Serum.—Havre (Journal de Chir. et Ann. de la Soc. belge de Chirurgie) publishes a case of acute traumatic tetanus which ended in death in spite of a preventive subcutaneous injection of 20 c.c. of antitetanic serum, made three hours after the receipt of the injury. After the first appearance of the attack of tetanus, the patient was treated by three further injections of serum.

After an elaborate criticism of the treatment applied in this case, and a review of the present knowledge of the action of tetanic toxins and antitoxins, the author concludes that the antitetanic serum, though a wonderful preventive agent when injected into the horse, has but a doubtful value and may also prove dangerous in man. The injection of this serum is more likely, he suggests, to do harm than good, when practiced as a supposed safeguard against tetanus. A full trial of both subcutaneous and intraspinal injections of the serum in cases of declared tetanus in man have, it is held, proven that it is of no value. In the pres

ent state of our knowledge of tetanic infection and its treatment by injection of serum, the term "curative serotherapy" ought, in the author's opinion, to be rejected. He adds that chloral and inhalations of chloroform have a real palliative value by the relief afforded to the suffering of the patient. The author proposes to test by laboratory research the value of other methods of dealing with acute tetanus that have recently been suggested, the most promising of these being the intravenous injections of antitetanic serum and of collargol, intraspinal injection of sulphate of magnesia, and intracerebral and intracarotid injections of serum. —British Medical Journal.

Death from Jonnesco's Spinal Anesthesia.—Gabbett (British Medical Journal) makes the following statement in regard to his method of spinal anesthesia: "General spinal anesthesia is absolutely safe; it has never caused death nor any important complications." That this statement is exaggerated is shown by the reports of death due to the methods that are gradually finding their way into medical literature.

Gabbett's case is reported from Madras. His patient had elephantiasis of the scrotum but was otherwise well. Three c.c. of a solution containing 10 cg. of novocaine and 1 mg. of strychnine hydrochloride were injected between the twelfth dorsal and first lumbar vertebrae, with the patient sitting up. He then lay down and within ten minutes was anesthetic almost to the level of the clavicles. Soon after, he became nauseated, then dyspnoeic and suddenly stopped breathing. Artificial respiration was without avail. A marked rigidity of the muscles of the chest and arms suggests that death may have been due to the strychnine rather than to the novocaine.

In Milward's case—one of ileus—spinal anesthesia was used on account of the persistent fecal vomiting. With the patient in the recumbent position, 10 cg. of stovaine and 1 mg. of strychnine were injected into the spinal canal in the dorso-lumbar region. Some twelve minutes later, respiration had ceased and fifteen minutes after the injection he was dead. Artificial respiration and other efforts at resuscitation were used in vain.

A similar case was observed by the writer of this abstract some weeks ago. The patient had an enormous uterine fibroid that was causing such severe hemorrhage that operation was imperative. On account of a bad myocardium with edema of the lungs a general anesthetic was contraindicated, while the size of the tumor and the probability of extensive adhesions made the surgeon unwilling to operate under purely local anesthesia. A solution containing 10 cg. of stovaine and 1 mg. of strychnine was injected into the lumbar spinal canal. Some minutes later the patient ceased to breathe and died in spite of all efforts to revive her.

In all of these cases, surgical shock played no part. In the first case, none of the large vessels and nerves had been divided; in the second, the operation had not been begun when the patient died; in our case the abdomen had only just been opened. Such cases prove that as yet the method has not been rendered safe, if indeed it is capable of being freed from danger. For the present, at least, it should be used only where general anesthesia is contraindicated and where local anesthesia is not practicable. When used, it should be with the definite understanding that it may at any moment result in the death of the patient.

The Difference Between a Sanitarium and a Sanatorium.

The words "sanitarium" and "sanatorium" are popularly understood to have the same meaning and are generally used interchangeably, when designating (or describing) places of refuge for sick people, but there is, in fact, quite a distinction between the meaning of the two words. In answer to a correspondent on this subject the Literary Digest says:

"The distinction between these words lies in the fact that they are derived from two different Latin roots. 'Sanatorium' is derived from the late Latin *sanatorius*, meaning *health-giving*. The terms relates specially to 'an institution for treatment of disease or care of invalids; especially an establishment employing natural therapeutic agents or conditions peculiar to the locality, or some specific treatment, or treating particular diseases.' On the other hand, 'sanitarium' is derived from the Latin *sanitas*, from *sanus*, meaning *whole*, or *sound*. 'Sanitarium' relates more specifically to 'a place where the hygienic conditions are preservative of health, as distinguished from one where therapeutic agencies are employed.' Hence it is the province of a 'sanitarium' to preserve health, that of a 'sanatorium' to restore it. Care should be exercised in combining the proper vowels in these two words, in order to indicate correctly the derivation."—Sci. American.

Arthritis Due to Injections of Antidiphtheritic Serum in a Child.

Augistron (Jour. de Med. de Bord.) remarks that slight local reactions have been frequently noted in man, but the present case is noteworthy from the intensity and persistence of the local phenomena. A boy, aged six years, was being treated for hemo-

philia. On the 18th of June, after a severe epistaxis, 20 c.c. of Roux serum was injected under the skin of the abdomen; no reaction followed. On June 27th, after a fresh hemorrhage, 10 c.c. of the serum was injected under the skin at the outer part of the left hip. Half an hour later the child complained of pain in the left leg, and there was muca tenderness at the site of injection. Three hours later movements of the leg were painful; the puncture showed a small ecchymosis surrounded by a pallid area the size of a five-franc piece. The thigh was edematous, and here and there were violent patches and areas of urticaria. The edema extended next day upward to the lumbar region and down below the knee. After this the phenomena slowly disappeared. The writer considers they were not due to sepsis, as they began half an hour after the injection, and there was no rise of temperature, but that they depended in some way on the serum reaction itself.—Brit. Jour. of Child. Diseases.

Diphtheria of the Intestines.

McKechnie (Montreal Medical Journal) records the case of a girl, aged six years, who left Fiji for Germany. Shortly before leaving she was attacked with apparently mild dysentery. The condition persisted during the voyage of two and one-half weeks, but was held in check by treatment, though the stools were small and frequent and contained blood, mucus and pus. Enormous quantities of streptococci were found to be present, and these disappeared under treatment with streptolytic serum, but the symptoms did not abate. Finally cultures showed bacilli of the diphtheritic type. Antidiphtheritic serum was then used with immediate improvement, and two days later a complete cast of the bowel, about four inches in length, was passed. The child made a slow but good recovery. The cast microscopically was a true diphtheritic membrane. The knee jerks were noticed to be absent, and later paralysis of the sphincter ani occurred, so that for two weeks there was incontinence of feces.—British Journal of Children's Diseases.

Nursing for the Neurologist; The Psychic Factor and What to Avoid; The Principles that Guide—An Address to Graduate Nurses.

There are four types of case (1) organic nervous disease, (2) "nervousness" proper, (3) manageable mental alienation, (4) the ill conducted or evil tempered, the adult edition of the spoilt child.

The first class is not considered in the paper, which is prefaced by an indication of the qualities which the nurse should possess. These are mainly derived from the experience of Dr. Weir Mitchell, his father and his son. A good nurse may be unsuitable for a certain patient. The absolutism of the hospital is out of place in the psycho-neuroses. Delicacy of thought outvalues rigidity of discipline. Keen observation and power to describe *facts* to the doctor are of great help. A list of almost incredible solecism actually committed by nurses is given.

Dr. Weir Mitchell prefers English women for nurses because they have no erroneous notions about the true meaning of democracy or the doctrine of equality. A nurse should be good looking, which is no bar to the plainest, who by right doing and thinking can make herself attractive by the true good manners which cannot be substituted by ape-like conventionality. Repose of manner, if not due to vacuity or indifference, is essential. Metaphorical squaring of the elbows is most obnoxious.

The more accomplishments the nurse can command the better for the upbuilding of her patients' psyche. The handicrafts are of great value. A knowledge of botany is a recommendation. A mind well stored with the beauties of literature is a great help; and the power to read or recite quietly with intelligent phrasing cannot be too highly estimated. This is particularly valuable in inducing sleep or tranquilizing a perturbed mind. But care must be shewn in choosing passages which do not light up painful memories; and a nurse should possess a large repertoire to fit different moods, but should not take the responsibility of choice except under the direction of a physician. Some patients require mastery rather than delicacy. Beware of suggestibility; and never attempt suggestion, it is the doctor's province. Never deceive a patient.—Tom A. Williams, M.B., C.M., Edin., Washington, D. C., in Trained Nurse and Hospital Review.

Tonic Stimulant for the Heart.

"Continued study, particularly of clinical cases, will show that Cactina Pillets is a mild tonic stimulant to the heart, acting both upon the nervous mechanism and directly upon the heart muscle. It promotes cardiac nutrition and overcomes atony of the heart muscle. Cactina has never been claimed to supplant digitalis, nor the other more powerful cardiac remedies. It has been shown, however, time and time again, that Cactina Pillets is especially serviceable in all functional disorders, as well as in certain phases of the common organic lesions."

The Exclusion of the Skin in Surgery.—Vallack (Australasian Medical Gazette) says that, next to garden soil, the most dangerous thing likely to get into a wound is the finger of a surgeon who is in the habit of allowing pus or other infective matter to get on his hands.

Infection derived from the hands of the surgeon and his assistants may be obviated by the use of rubber gloves. One has no hesitation in dogmatically asserting that the assistants should wear gloves always, and the surgeon almost always. One uses the qualifying adverb because there a few cases in which the wearing of gloves is better avoided. The difficulty, for instance, of suprapubic enucleation of the prostate gland would be vastly increased by wearing gloves. In curetting for miscarriage also the use of gloves interferes with the delicacy of touch necessary for detecting and removing small tags of decidua.

In abdominal sections with complicated adhesions the writer thinks that the greater delicacy and speed with which the bare hand can work more than compensate for the mild sepsis which it invariably introduces, for there can be no doubt that with gloves on one has a tendency to pinch the slippery viscera to prevent them from escaping from the fingers. He makes the reservation, however, that if one has touched septic matter, one should not operate with bare hands for at least a week afterward. He makes the further reservation that cases bad enough to justify us in discarding gloves are the exception, and that in any case the gloves should be resumed before inserting buried sutures in the abdominal wall.

With regard to the patient's skin, we have no such simple remedy, and the exclusion or bacteria from this source affords no easy problem. Hardening the skin with alcohol as suggested by Ahlfeld will prevent detachment of epithelium as long as the skin is kept dry, but as soon as it is moistened with sweat or blood the germ-containing epithelium becomes easily rubbed off again. The writer thinks that the plan which he suggested some years ago of stitching towels to the cut edges as soon as the incision is made is one of the best methods. As this appears to cost more patience than the average surgeon has to spare (the surgeon being of all men the least patient), the towels may be fastened by pointed clips or volsella to the skin instead of by sewing. Unless the towels are actually fastened to the skin they are liable to be pulled out of place and any amount of skin exposed. This proceeding effectually prevents buried sutures from trailing over the skin, and also prevents instruments or hands from touching it.

Doderlein has suggested an ingenious method for excluding the skin by means of a rubber paint, which he terms gaudanin. The skin is first "tanned" by painting with a solution of iodine in order to make the paint adhere, and then liberally painted with gaudinin. Doderlein states that when using this method he was unable to obtain cultures from his wounds, though he never failed to obtain cultures when gaudanin was not used, even though his own hands were covered by gloves. Dr. Vallack has been using gaudanin for several years and finds it satisfactory, but it is liable to become detached from the skin during an operation, and of course it does not exclude germs at the actual cut edge of the skin. He is, therefore, in the habit of using towels clipped to the skin as an additional safeguard. After the skin has been prepared in the usual manner, and just before operation, the site for the incision and the skin for some distance round it are painted with liv. iodi fort. When this has dried it is painted with gaudanin, and this also allowed to dry, which it does quickly.

At the operation, as soon as the skin has been incised down to the deep fascia, a towel is placed on each side of it with its edge running alongside the wound. At each end of the wound the towels are made to slightly overlap, and then a pair of sharp-pointed clips are made to grasp both the towels and also the underlying skin, the points, of course, penetrating both towels and skin. The edges of the towel are now tucked over the cut edges of the skin on each side as far as the deep fascia, and fastened there with another pair of clips. Thus four pairs of clips are used, one at each end and one on each side. In a large wound more can be used if necessary. The clips are not removed (except for the purpose of lengthening the wound) until the operation is completed and only the skin sutures remain to be inserted.

The author thinks that this method of excluding the skin is as perfect as our resources at present permit. The gaudanin is imported, and the best clips are the kind marked No. 4996 in the Holborn Instrument Co.'s catalogue; they have not been dignified by a special name. Ordinary uterine volsella can be used, though they are rather clumsy. With regard to buried sutures, the writer never uses anything but chromic gut sterilized by heating for six hours in creosote at 100° C., after heating for two hours at 80° C. in the same medium to dry it. These matters consume a little time and trouble, but the surgeon can leave the case in the sure and certain hope that

there will be no resurrection of the buried sutures.

The Choice of the Anesthetic.—Buxton (Proceedings of the Royal Society of Medicine) says that the choice of an anesthetic depends on at least three important points: the condition of the patient, the necessities of the operation—which should include the region of the operation—and the duration of the operation. The safety of the patient must be paramount in the whole problem, not only during the period of induction and the period of maintenance of anesthesia, but also after the patient has come forth from the anesthetic and has to face the after-effects alike of the operation and the anesthetic, since these may be disadvantageous to him. For instance, in operations on the chest or on the abdomen it might be justifiable to employ ether; and yet if, after the operation, the patient is going to have such tight bandaging as to restrict the respiratory movements, and prevent the ejection of any accumulated fluid in the lungs, the pulmonary after-effects might show the choice of the anesthetic to have been faulty. Then we have to consider the patient from the point of view of view of normality and the degree of his departure from the normal. Many of us will feel that some of the old rules in vogue when we were commencing our work have now fallen into desuetude—such rules as those with regard to age, and the rules concerning method. We used to be told that ether should never be used below six years of age, and never after sixty. We were told that children took chloroform like mother's milk, and that they enjoyed a special dispensation granted by Providence which relieved them from the occurrence of dissolution whilst inhaling the drug. All belief in these things is now wiped away. We know that age is no absolute criterion in the choice of an anesthetic; we have to decide by individual physique and individual peculiarity rather than by age. Take, for example, an elderly man who, by the old rule, will be debarred from ether after the age of sixty. Some men of forty should be debarred from ether, because their arteries are degenerate, and they suffer from bronchial trouble, whereas many men over sixty are, except for their arteries, under forty.

The main point with regard to young children is this: they lose heat very rapidly, so that under an anesthetic, shock, which is practically loss of heat and failure of blood-pressure, is the chief peril. That is why it is inexpedient to give them ether unless precautions are taken to avoid loss of body heat. Ether is taken by young children very well for short operations if it is carefully given, but as the body temperature may be lowered from ½° to 3° F. very quickly, and that loss is very serious, we shall hesitate before giving ether to a very young child. Some years ago the author tested the effects of giving ether to young children, and the main points which struck him were the liability to salivation and bronchorrhea, which he regarded as not only distressing, but injurious to the children. Of course for very brief operations one would employ nitrous oxide or ethyl chloride. Dr. Flora Murray, a physician who has had much experience with children, has published a paper citing a considerable number of cases. She states that ethyl chloride, given in small doses, is very valuable for small operations. In dental work, especially for fidgety children, chloride of ethyl is valuable, although it is liable to cause nausea and even sickness.

In medium-aged children it is better to continue the anesthetization with chloroform when surgical operations are in progress. For those who maintain anesthesia right through with one anesthetic, the writer believes that a mixture which he now employs, rather than the A. C. E. or C. E.—viz., 1 in 10 alcohol and chloroform by the open method. The author employs chloroform *ab initio* when a regulating inhaler is used. It is very important in children, whose protoplasm is very susceptible to all drugs, to insist upon the use of low percentages, at all events during the period of maintenance, and avoid anything like asphyxiating complications. This, of course, would be effected by the employment of a regulating inhaler, especially if we employ oxygen *pari passu* with our chloroform. One cannot help being struck by the terrible mortality in young children during the operation of circumcision. Chloroform is commonly given, and children frequently die, and the author thinks they die because the reflexes are so very active in that operation that perhaps those who are less experienced push the anesthetic with the idea of abrogating all the reflexes, which, of course, is an impossibility. Therefore, with the exception of extremely young children—babes a few weeks old—he always employs ether for the induction of anesthesia in these cases, and goes on afterward with chloroform.

The routine anesthetic for youth and middle age is recognized as being nitrous-oxide gas, followed by ether. When we remember the very potent after-effects of ether, even if there are not nausea and vomiting, the writer thinks that we have forced upon us the fact that the majority of people have more discomfort after ether than is at all necessary; this arises, he believes, because

in the hands of the inexperienced too much ether is given. It is said that the employment of the open method will prevent this excessive dosage; but that is not the experience abroad, where the open method has been largely used and considerable quantities of ether employed, and where the remote after-effects are frequently prejudicial. So now, Buxton's practice is to confine ether to brief operations, even in middle life, and he follows it with chloroform; and practically always gives chloroform in association with oxygen so as to avoid all asphyxial complications.

The Treatment of Epistaxis.—Boyd in the Australian Medical Gazette describes a method of plugging the nares for obstinate bleeding which has resisted the usual means of treatment. The plan the writer recommends is very simple and requires only strips of clean muslin and a pair of dressing forceps. A piece of dry muslin about six inches square is wrapped around the points of a closed pair of dressing forceps by placing the latter in the center of the square and then folding the muslin around the blades umbrella-fashion. This is then passed through the nares until it impinges on the posterior pharyngeal wall, and the forceps is then withdrawn. The edges of the muslin are now spread out over the face and the hollow cone inside of the nose is plugged with small pieces of cotton wool soaked in any stringent drug. If it is not necessary to plug the post-nasal fossæ the muslin can be pulled very slightly forward after the withdrawal of the forceps so as to clear the posterior wall before the plugs are introduced. This prevents the temporary deafness which is sometimes set up. The method is much simpler and much less unpleasant than the operation of posterior plugging as it is commonly performed.

Gallbladder Surgery.—Jenckel in the Zeitsch. f. Chir. reports a series of interesting observations from the Surgical Clinic of Gottingen. Cystectomy gave the best results in hydrops and empyema of the gallbladder. the operation being done fourteen times in twenty-two cases of the former twenty-six cases of the latter. In the calculous obstruction of the common duct, choledochotomy, with drainage of the hepatic duct, was ordinarily employed. Of twenty-four cases operated upon for this condition only one terminated fatally. The operative statistics of cancer of the biliary passages were very unfaqorable. Of thirty-two cases, five died immediately after operation and twenty-seven shortly thereafter.

Surgery of the Bloodvessels.—Dr. Kruger (Archiv. f. Klin. Chir.) from a study of 46 cases of injury and disease of the peripheral bloodvessels treated in the Surgical Clinic of Jena during the last twenty years, concludes that in general the results of ligature have been fully equal to those obtained in more recent years by suture. In 23 cases in which suture might have been feasible, there were 17 cures, while in 6 gangrene occurred, necessitating amputation of the extremity. Nothing better could have been expected from suture.

Cysts of the Cerebellum.—Williamson (Rev. of Neur. and Psych.) collects a number of published cases. He points out that Horsley gives the operation mortality as 1 in 10 in cerebellar tumours, and as 1 in 27 in motor area operations. Two points are clearly in favour of operations:—(1) Craniectomy in the region of the cerebellum relieves tension, and even if no attempt be made to remove the tumour, this palliative treatment is often followed by relief of the most distressing symptoms. The headache often diminishes or disappears, the optic neuritis subsides and vision often improves. (2) The lesion may be found to be a cyst, and surgical treatment then has usually excellent results. The writer states the chances of finding that the lesion is a cyst is at least 1 in 20.

The Act of vomiting as Seen by X-Ray. Levy-Dorn and S. Muehlfelder state that the act of vomiting as described in the textbooks on physiology does not correspond with the actual facts as viewed by the aid of the X-ray. Thus it has been said that "the musculature of the stomach plays no decidedly active part in the act," and again that, "coincidently with a spasmodic contraction of the expiratory belly muscles, and with closure of the glottis and a low position of the diaphragm, the pylorus is tightened and the cardia completely relaxed, but the stomach remains flaccid." Each of the writers in turn swallowed a concentrated mixture of bismuth carbonate, sugar and water, and was then watched by the other through the fluorescent screen during the act of vomiting. The lower pole of the stomach was seen to lower itself suddenly, and then to rise jerkily to the extent of three finger breadths. Sometimes the stomach made several short jumps up and down before rising more markedly. Viewed sideways, the stomach was found not only to rise, but also to draw back from the belly wall. The gastric shadow became at the same time shallower and narrower. The diaphragm assumed an inspiratory position at the commencement to the act of vomiting, but during the remainder of the act was in an expiratory position. It appears clear that during vomiting the stomach contracts forcibly upon its contents.—Berl. Klin. Woch.

Miscellaneous.

Clinical experience with Hagee's Cordial of the Extract of Cod Liver Oil Compound justifies the assertion that its therapeutic indications are precisely those which belong to cod liver oil in its natural condition.

The fatty element (and this alone) is indeed completely eliminated, and while the nutritional value of that factor is undoubted, as is the case with most of the other varieties of animal and vegetable oils, it must not be forgotten that oil in any form will not be tolerated by the gastric mucous membrane in many of the cases for which cod liver oil is indicated. Hagee's Cordial is free from the taste and smell of oil, and is acceptable to the most fastidious taste.

Concerning Medical Education.

There are many matters connected with medical education that are still in dispute. Such a prosaic subject as the curriculum would seem to offer little room for discussion, yet the variability of the medical curricula is something astonishing. One college requires 460 hours for obstetrics, and another only 52 hours. Surgery occupies in one college 2,221 hours, while in another the subject is covered in 78 hours. Physiology varies from 750 to 56 hours, the latter in no less a school than the University of Virginia. Surely, if the medical college authorities cannot agree on uniform curricula, it behooves the rest of us to go slow with our suggestions for medical legislation. Since the majority of the states possess examining boards which stand between the colleges on the one hand and the public on the other, it may be well to let the colleges find their own salvation without too much meddling on our part. Another fact worthy of consideration is this, that there is not and probably never will be, a means for legally determining whether a medical college professor is competent to teach the branch assigned to him. The suggestion has been made that there should be a college for the instruction of medical professors.

Another topic concerns the amount of laboratory work to be given in the fundamental branches. This has given rise to a vast discussion. There are not a few who think that laboratory idea has been developed in some schools to the detriment of the clinical and practical side of medicine. One of the acute thinkers in our profession has said recently:

"Under the present system of teaching not all professors or adjunct professors are practical physicians or surgeons, and are, as a consequence, too often totally unacquainted with or alive to, the actual mental needs and requirements of the busy medical practitioner. Whilst not in the least inclined to detract from the real merit of these professorships, we cannot close our eyes to the fact that many of these non-practising professors naturally and of necessity must, in most cases, give the whole of their time to the solitary study and development of some one branch as being the one upon which the practising physician must have the minutest and fullest information."

There is something wrong with a system of education which stuffs and crams the individual as if he were a goose to be fattened for slaughter. So much of our knowledge is for the specific purpose of passing a State Board examination that we are in danger of turning out a race of poll parrots in place of men rugged individuality, such as was the chief attribute of many of our older doctors. Recently, this subject has been touched upon by President Faunce of Brown University:

"Our young men, compared to those of fifty years ago, seem lacking in the power of sustained attention and original thinking. They usually do not think as clearly, as patiently and as cogently as did their fathers. They do not as quickly distinguish the irrelevant from the pertinent, the kernel from the husk, as the men of the last geneiation. They are quickly led astray by sophistry and easily surrender their convictions when these conflict with their interest."

A fallacious idea that seems to be gaining ground is "the extremely unphilosophic connection that links the proficiency of the individual with the existence of academies, universities and colleges, as if the latter alone or otherwise could make a genius." Without entering into an elaborate discussion on this topic, permit us to say that the university or college alone cannot make a real doctor. There must be a happy combination of individual and institution. Furthermore, not all of the so-called private medical colleges are doing poor work, nor are all of the so-called universities in truth what their name implies.—Medical Review.

To Relieve the Effect of Solar Heat.

Direct exposure to the sun's rays; employment in or living in hot and poorly ventilated offices, workshops or rooms, are among the most prolific causes of headache in summer-time, as well as of heat exhaustion and sun-stroke. For these headaches and for the nausea which often accompanies them, antikamnia tablets will be found to afford prompt relief, and can be safely given. Insomnia from solar heat is readily overcome by one or two antikamnia tablets at supper time, and again before retiring.

If these conditions are partly dependent upon a disordered stomach, two tablets with fifteen or twenty drops of aromatic spirits of ammonia, well diluted, are advisable. For the pain following sun or heat-stroke, antikamnia in doses of one or two tablets every two or three hours will produce the ease and rest necessary to complete recovery. As a preventive of and cure for nausea while traveling by railroad or steamboat, and for genuine *mal de mer* or sea-sickness, antikamnia tablets are unsurpassed.

Chloride of Ethyl Must be Pure.

As a local anesthetic Chloride of Ethyl has come into high esteem, and justly so—but in its use it is of the utmost importance that the preparation shall be *pure*.

Because there are so many impure preparations on the market many physicians—the writer among them—refuse to use any other form of ethyl chloride than "Kelene, the purity of which is absolutely certain. A spray of Kelene," owing to its purity and its low boiling point, produces anesthesia by utilizing the intense cold resulting from its quick evaporation.

The use of "Kelene," is void of dangerous effects, and has been proven invaluable in past years as a local anesthetic in medicine and surgery.

Owing to its boiling by the mere warmth of the hand, the liquid escapes in a vaporized stream, which can be regulated by the operator as desired. A so-called finer and colder spray can be obtained by a mixture of chloride of ethyl with other products of a still lower boiling point, but although the freezing action is sooner produced, most patients complain of a rather painful sensation, which is avoided by the use of pure chloride of ethyl, that is "Kelene." (Fries Bros.)

Removing Stains.

A Belgian pharmaceutical journal gives the following notes regarding the removal of stains caused by medicaments. Iodine is best removed by moistening with ammonia or solution sodium hyposulphite. Sylla recommends the following for removing silver nitrate stains from the skin: Mercuric chloride, ammonium chloride, of each 10 parts, distilled water 80 parts. Chrysarobin stains are easily taken out by means of benzine, chloroform, or absolute alcohol. If used warm these solvents act quicker. To remove the stains of picric acid soak in a solution of an alkaline sulphite, such as potassium sulphite, then wash with soap and water. Recent stains are removed by rubbing with magnesia and water. For resorcin stains a weak solution of citric acid is good. Pyrogallol stains if old cannot be removed, but if recent are best treated first with a 5 to 16 per cent. solution of ferrous sulphate, and when the stain has changed color wash and remove the remaining stain with a solution of potassium binoxalate. Tar stains are best removed by an alcoholic solution of soap. —British Columbia Pharmaceutical Record.

The Treatment of Empyema, Pleuritic Effusion and Hydrocele with Borax Solution.

Esch has used the following method of treatment with much success in cases of purulent and serous effusion in the pleura or the tunica vaginalis. After withdrawing the pus or other fluid, he injects a considerable quantity (about a pint in the pleura) of a 2 per cent. solution of borax (sodium biborate) at a temperature of 100° F. The solution is allowed to remain in the cavity for ten or fifteen minutes, and then allowed to drain out. In cases of hydrocele the testis is then strapped. The method is safe, quite painless, and induces a rapid recovery. —La Tribune Medicale.

The Following are Some of the Golden Rules of Cooking and Feeding.

1. Proteid should preponderate in early growing period of life, and fat in middle age of activity and work; carbohydrates in old age.

2. Animal food is best cooked in low heat, vegetable food at a higher temperature.

3. Dry food is digested very much better, therefore fluid should best be taken in empty stomach or long after meal.

4. Mastication is of the utmost importance in digestion.

5. There must be rest preceding and following a heavy meal.

6. Our midday meal should be lighter, because there is the day's work after it; the evening meal should be the most sumptuous, leisurely taken in the most pleasant company.

There are other things which we must remember to form a rational idea about the solubility, digestibility and absorption and assimilation of our food and these are:

1. The growing use of organic salts of minerals for therapeutic purposes rather than the minerals alone, as atoxyl in place of arsenic and peptofer; their uses are daily increasing as more easily assimilable.

2. The growing use of organo-therapeutic preparations, such as thyroid, adrenalin.

From these facts it is evident that later on, we will have to depend more and more upon animal sources than either upon vegetables or upon minerals alone, both for our medicine as well as food, specially in invalid

cases. This also gives us some suggestions as regards the relative solubility and assimilability of the animal and vegetable food, specially in the earlier growing period of life. This is an important hint for the proper selection of the kind of food, specially suited for our children at the present age, when their body-building, health, vigor and vitality are run down so low.—Journal of the Calcutta (India) Medical Club.

Flexner's Report of the Carnegie Foundation on Medical Education.

When one reads the report of Abraham Flexner on the condition of the medical schools of the United States, he hardly knows what he wants to do most. Laugh at Abraham or flay him as unmercifully as he has scored nearly all the medical colleges in the United States and Canada. The report is so manifestly unfair and unjust that we doubt if it has any lasting or permanent good. For fear there has been a united effort on the part of those connected with the teaching force of the medical colleges as well as those who are not, to improve in every way the colleges of the country. The preliminary education necessary for admission to all reputable schools has been made much higher and more thorough in every way and the length of time the student must spend in college before coming up for his degree has been increased to four years of eight months each, and the method of teaching made much more practical and comprehensive. Nearly all States in the Union have "State Boards" before which the embryo doctor must appear and pass his final examination before he is allowed to practice medicine. All this seems to have escaped the notice of Mr. Flexner. It is quite likely that changes for the better could be made in all or practically all the schools of the country, but when one reads this "screed" of Flexner he feels a sense of beligerency that is difficult to suppress. He seems to see no good anywhere. Indeed, it would be difficult to conceive of a reported investigation in which the truth was so much distorted, facts suppressed and downright prevarication (to use no stronger term) indulged in than this. As a piece of monumental impudence it certainly stands without a parallel.—The Americal Medical Compend.

Acute Thyroiditis and its Cardiovascular Complications.

Parisot states that most infectious diseases may produce lesions of the thyroid gland by inflammation. He gives histories of cases in which thyroiditis with cardiovascular symptoms accompanied puerperal streptococcemia, typhoid fever, mumps, and pneumonia. There occurred tachycardia, dissociation between the pulse and temperature, localized pain, and palpitation. The vasomotor reactions may be exaggerated; the arterial pressure is markedly lowered, and the pulse becomes depressible. These symptoms are transitory, and disappear with the disappearance of thyroid congestion. They seem to be due to a hypersecretion by the thyroid which is passing, and causes temporary symptoms of poisoning. They are similar to the symptoms that appear after operations on the thyroid.—La Presse Medicale.

State Board Examination Questions of Missouri.

ANATOMY.

1. Describe superficial and deep palmar arch; how formed? Give landmarks.
2. Name all muscles that elevate the arm at shoulder joint, giving origin and insertion of same.
3. Give minute and gross anatomy of kidneys.
4. Give minute and gross anatomy of pleura.
5. Give origin, ending, branches, and relationship of posterior tibial artery.
6. Describe the tibia, giving points of ossification. With what bones does it articulate?
7. Draw cross section amputation of forearm, middle third, naming structures divided.
8. Give origin, course, exit, and parts supplied by the second pair of cranial nerves.
9. Describe anterior triangle of neck, how formed, giving contents.
10. Describe the spinal column, giving characteristics of vertebra in each division.

PHYSIOLOGY.

1. State the general character and physiological action of the hydrocarbin and albuminoid substances.
2. Give mode of secretion and composition of the gastric juice.
3. Give physiological action of the saliva.
4. Describe the blood and give the composition of the red and white globules.
5. Explain the cause of coagulation of the blood and its usefulness.
6. Give the composition of the urine and state which constituent is the most important.
7. State the most important function of the medulla oblongata as a nervous center, with full explanation of same.
8. Name and give function of first pair of cranial nerves.
9. Give origin and function of fifth pair

of cranial nerves.

10. State the general arrangement and function of the sympathetic nervous system.

CHEMISTRY.

1. Describe and state the physical and chemical properties of oxygen.

2. Give the chemical formula for potassium iodide, and state how it is made.

3. Name the four elements known as Halogens, and describe each.

4. Give chemical formula for phenic acid. From what derived? For what purpose used in medicine? Give treatment for toxic dose.

5. Give chemical formula for sulphuric acid. How obtained? Give toxic dose. For what purpose used in medicine?

BACTERIOLOGY.

1. Describe the process of producing diphtheria antitoxin.

2. Give theory of immunity produced by vaccination.

3. What diseases confer immunity by vaccination or inoculation?

4. Give the technique for staining for the pneumococcus.

5. Describe in detail process of finding tubercle bacilli in a specimen of urine.

PATHOLOGY.

1. What is aortic stenosis? Give pathology.

2. What is the pathological condition found in chronic Bright's disease?

3. Give the pathology in specific iritis.

4. What pathological conditions are found in acute catarrhal dysentery?

5. Give pathology of chronic gastritis.

THERAPEUTICS.

1. Name the officinal preparations of opium. Give dose and therapeutic uses.

2. Give the physiologic action and therapeutic uses of colchicum.

3. Give the dose and therapeutic indications for bryonia.

4. Name the officinal preparations and give therapeutic uses of calcium phosphate.

5. Give the dose and therapeutic uses of veratrum.

6. Give the dose, physiologic action, and therapeutic uses of ipecac.

7. Name the officinal preparations, give the dose and therapeutic uses of nux vomica.

8. Give the dose and therapeutic indications for tartar emetic.

9. Give the dose and therapeutic indications for aconite.

10. Name the officinal preparations of cinchona. Give dose and therapeutic uses.

PRACTICE.

1. Give etiology, exciting cause, and treatment of variola.

2. What are the methods of physical diagnosis, and what phenomena are obtained by these methods?

3. Give etiology, symptoms, and treatment of lobar pneumonia.

4. What are the physical signs of incipient pulmonary tuberculosis? What is the treatment?

5. What is the etiology and treatment of typhoid fever?

6. Give the symptoms and treatment of acute bronchitis.

7. What are the symptoms of acute Bright's disease, and how should it be treated?

8. What is a cataract, and how would you treat it?

9. How would you diagnose a case of non-suppurative otitis media? What is the treatment?

10. What are the conditions found in psoriasis? What is the proper treatment for same?

OBSTETRICS.

1. Describe pregnancy from ovulation to maturity of fetus, giving mechanism of delivery in an L. O. A. presentation.

2. Describe placenta prævia, giving varieties, causes, diagnosis, and treatment.

3 Differentiate hand from foot, knee from elbow, shoulder from vertex. Give management of shoulder presentation.

4. Define eclampsia, giving etiology, prognosis, and treatment.

5. When should chloroform be used in labor? Ditto ergot? Give advantages and dangers of each.

6. When should forceps be used? Give manner of applying the same, with mechanism of delivery after application, selecting your own presentation.

7. Differentiate false from true labor pains. Give stages of labor and what occurs during each stage.

8. Describe asphyxia of new born, giving varieties and treatment.

9, Give your method of caring for the new born from birth until it is dressed.

10. Give signs of pregnancy at third and sixth months.

GYNECOLOGY.

1. Define vulvitis. Give varieties, causes, and treatment.

2. Define vaginitis, giving varieties, causes, and treatment.

3. Define menstruation. Name disorders of same, giving usual causes and treatment of each.

4. Define metritis. Give varieties, causes, and treatment of each.

5. Give differential diagnosis in inversion, polypi, prolapsus uteri, and method of treating each.

SURGERY.

1. Give differential diagnosis between brain abscess and brain tumor.

2. Describe an operation for cure of femoral hernia.

3. Give symptoms and treatment of acute osteomyelitis.

4. Give diagnosis between gastric cancer and ulcer.

5. What is the treatment of gunshot wound of the knee from a revolver wound?

6. Give the signs and symptoms of tuberculosis of the kidney.

7. Differentiate between an old dislocation and tuberculosis of hip joint.

8. What is the best treatment for a fracture about the elbow joint? Why?

9. Give signs and symptoms of intussusception.

10. What operation do you consider profitable for removal of prostate gland? Give reasons.

HYGIENE.

1. Give etiology and prophylaxis of ophthalmia neonatorum.

1. Discuss etiology, prophylaxis and hygienic care of cholera infantum.

3. Name three infections transmitted through air; through water; through food; through insects. Give prophylaxis.

4. Give period of incubation, length of quarantine and hygienic care of the following diseases: Smallpox, scarlatina, diphtheria, measles.

5. Discuss vaccination and antitoxine, giving brief history of each, and value of same.

MEDICAL JURISPRUDENCE.

1. What evidence would you look for to distinguish cerebral concussion from intoxication?

2. What evidences determine a recent from an old cerebral hemorrhage?

3. What is malpractice—civil, and criminal?

4. In case of drowning, how would you determine whether homicidal, suicidal, or accidental?

5. In case of hanging, what circumstantial evidence would you look for, to determine whether the act was homicidal, or suicidal?

6. Where a question arises as to personal identity, in what manner, or by what tests would you determine it?

Practical Indications for the Diet of Infants.

Perier and Gaujoux says that the food ration of the infant should bear relation to its weight, its physical development, and its age. It is also necessary to be careful that the infant is not over fed as well as that it has sufficient upon which to grow. Its amount of food should vary with the season, climate, and altitude. It should vary with the condition of every infant, and it is impossible to give fixed rules for all cases, since each case should be individualized. An infant which weighs four kilograms at birth and whose nurse has an abundant supply of milk that is weak should be fed more than the child who is smaller and gets a more nutritious milk. A young infant who is just beginning to nurse should not be allowed to take all the milk from the breasts when it begins to flow. During the first seven days the amount should be increased 10 grams per day. During the first five months it should be increased 10 grams per month. We may gauge the amount of milk that a child can take by multiplying by two the first two figures of its weight in kilograms. Each time that the child nurses he should suck a single breast, leaving the other for the next lactation. We cannot state in minutes the length of time that a nursing period should last. But the child should never be allowed to suck a long time lest he macerate the nipple, and there is danger of his taking too much. The breasts are habitually asymmetrical; this causes variation in the amount and quality of the milk. Sometimes it is necessary to dry up one breast on account of the difference. It is advised to cause the child to nurse first from the smaller breast so as to increase its size by nursing.—Annales de Medicine et Chirurgie Infantiles.

Doctors Average Annual Income.

The New York Herald some time ago placed the average annual income of the profession at $1,250. There have been lower estimates than this even, but the figure named is conservative. This seems a most inadaquate return for ten years of preparation, an outlay of from $7,500 to $10,000 before the student arrives at the age of earning capacity.—New York State Journal of Medicine.

Pellagra in Egypt.

Hughes says that pellagra has been the subject of a good deal of inquiry lately in Egypt. The question of attributing it to diseased maize has been much discussed. It is more common in the Delta than in Upper Egypt and is noticed more in the winter and spring months. The skin lesion is obvious and unmistakable, but other symptoms of a nervous disease, excepting perhaps a slight increase of the knee jerk, are seldom seen among the younger population. A curious fact, too, is that although one member of the family may have a markedly pellggrous skin, the others are

Therapeutic Dependability—

the unfailing accomplishment of definite physiologic results—has won for

Gray's Glycerine Tonic Comp.

its recognized place in the treatment of all forms of functional debility. ¶ When other tonics fail or are contra-indicated for one reason or another, GRAY'S GLYCERINE TONIC COMP. may be freely used with the constant assurance that its effects will ever be restorative and reconstructive—never harmful or injurious.

Samples and literature on request.

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LISTERINE is a powerful, non-toxic antiseptic. It is a saturated solution of boric acid, reinforced by the antiseptic properties of ozoniferous oils. It is unirritating, even when applied to the most delicate tissue. It does not coagulate serous albumen. It is particularly useful in the treatment of abnormal conditions of the mucosa, and admirably suited for a wash, gargle or douche in catarrhal conditions of the nose and throat.

There is no possibility of poisonous effect through the absorption of Listerine.

Listerine Dermatic Soap is a bland, unirritating and remarkably efficient soap.

The important function which the skin performs in the maintenance of the personal health may easily be impaired by the use of an impure soap, or by one containing insoluble matter which tends to close the pores of the skin, and thus defeats the object of the emunctories; indeed, skin diseases may be induced, and existing disease greatly aggravated by the use of an impure or irritating soap. When it is to be used in cleansing a cutaneous surface affected by disease, it is doubly important that a pure soap be selected, hence Listerine Dermatic Soap will prove an effective adjuvant in the general treatment prescribed for the relief of various cutaneous diseases.

"The Inhibitory Action of Listerine," a 128-page pamphlet descriptive of the antiseptic, and indicating its utility in medical, surgical and dental practice, may be had upon application to the manufacturers, Lambert Pharmacal Co., Saint Louis, Missouri, but the best advertisement of Listerine is . . . . . .

LISTERINE

perfectly healthy. Anæmia is almost invariably associated with it. Hughes, from his observations, does not favor the theory of connecting the pellagrous skin with a nervous disease.—The London Medical Lancet.

The Genital Crisis of the New-born.

This condition consists according to Lequeux and Marioton, who write in the Bulletin de la Societe d'Obstetrique de Paris, in a swelling of, and a secretion of a milky fluid by, the mammary glands in both sexes. In the male in addition there may be swelling of the testes and of the prostate gland, together with a secretion of fluid in the tunica vaginalis. In the female the uterus may be congested and menstruation occur. Acne, seborrhœa, and an increase in lanugo may be noticed in both sexes. The phenomenon was met with in 532 out of 1,575 cases in the Tarnier clinique, and seemed commoner in well-developed than in premature and weakly infants. Hydrocele occurred in 67, menstruation in five cases. The crisis occurs most commonly about the tenth and is rare before the seventh day following delivery. Both sexes would seem to exhibit the phenomenon in equal proportions. It is purely physiological and needs no treatment as it is not an inflammatory process. The mammary secretion is composed of fat globules and epithelial cells, and no micro-organisms are found in it, unless infected from without by manipulation. The crisis is possibly caused by some internal secretion of the mother's placenta.—The Hospital, London.

Morbid Associations and Immunization.

Hutinel gives interesting examples of the coincidence of various forms of infectious diseases in children and adults, and formulates his conclusion, that two such diseases when associated modify one another and interfere with the natural process of immunization, which is necessary for the cure of disease. Typhoid is increased in its duration, its severity is aggravated, and relapses are more frequent when any other infectious disease accompanies it. Syphilitic lesions sometimes disappear at the beginning of a typhoid, to reappear in a much more severe, sometimes a fatal, form after the fever has passed. Experiments in immunization in animals show that there is an interference when two diseases are inoculated at the same time. The author questions whether this is the result of interference with phagocytosis, since bacterial products lessen the activity of the leucocytes both directly and by their effect on the nervous system.—La Bulletin Medical.

Meningism: Its Relations with Lumbar Puncture.

Bousquet wants to establish a means of diagnosis between true meningitis and the so-called meningism, and has experimented as to the possibility of establishing a test by means of lumbar puncture. He describes, under the head of meningism, the clinical manifestations of meningitis, without pathological conditions corresponding to them which we see in hysteria and reflex meningism. Some of these conditions are toxic, others are due to intestinal poisoning. Lumbar puncture in most cases is of great value in establishing the differential diagnosis between these conditions and true meningitis. At the same time these results are not always implicitly to be relied on since some of the signs fail to be present in certain cases. Cytological changes in the cerebrospinal fluid and microbian invasion are not always evident to tests made of this fluid. In difficult cases we should make use of the triple tests, cytological, bacteriological, and chemical, and it should be considered whether there are any leucocyte alterations.—Gazette des Hopitaux.

An Medico Barba?

The question which has been discussed for some three hundred years, as to whether the doctor, and more especially the surgeon, should sacrifice that playground of microbes —his beard—is once more to the fore, especially in France. It is more than probable that everyone interested will act according to his own particular fancy in this matter, and it will probably be a long time before our Gallic confreres will be forced to sacrifice the glories of their facial decorations on the altar of hygiene. At one time, however, there was no choice in the matter, for Alma Mater commanded and everyone had to obey. On March 25, 1599, at the instance of one Barthelemi Perdulcis, a member, the Faculty of Medicine of Paris ordained that its bachelors admitted on that day should shave their beards. The names of the victims of this order have been preserved to this day, and are given in La Chronique Medicale. A little later, before the same Faculty, a thesis was sustained entitled "An medico barba?" Unfortunately the conclusions arrived at have been lost in oblivion. The obstetricians of the *grand siecle*, and in particular Mauriceau, were of opinion that accoucheurs, at least, ought to wear full beards to counteract the dangerous effects of their seductive personalities upon their charming but too susceptible patients! Those who have embarked upon the present crusade attack the problem from a somewhat different standpoint, and although the bacteriology of the beard has

Fellows' Syrup of Hypophosphites

Probably no specific known to the profession, during the last half century, has met with such marked success.

Reject < Worthless Substitutes Preparations "Just as Good."

not as yet been the object of very profound study, their ideas are not unreasonable. Still, without being as radical as they would like, is it not possible that the sanctity of the laws of hygiene can be respected by the use of ordinary measures of cleanliness, or, at most, an antiseptic beard-bath. For what is there to prevent hair and eyebrows following beards if these terrible shears are allowed unfettered play? Our contemporary shudders to think what the effect on the ladies might be!—The Hospital, London.

The Influence of the Cerebellum on the Coordination of Words.

Garbini considers it demonstrated that the cerebellum exercises a coordinating action on articulate language. The demonstrative cases are those of Sanloeffer and U. Rosso, the last of which was confirmed by autopsy at the Instituto Umbro, in May, 1906. The macroscopic and microscopic characteristics were shown of atrophy and total sclerosis of the cerebellum. The authors record that the subject in life had presented a pseudobasilar syndrome, and articulated language was changed by disturbances of speech, dysarthria, dysphasia, and bradyphasia. He thinks that the regulatory mechanism is in the cerebellum, and impulses pass out by the system of cerebellorubrothalamic neurons, and run through the ansa nuclei lenticularis, and the putamen, to produce their regulative action. This has a marked importance in its effect on the mechanism of words, the impulse for which passes through this nucleus by a certain number of fibers deputed to articulate language.—La Riforma Medica.

August 8th, 1910.

To the Editor,
Dear Sir:—

A few days since your correspondent had occasion to visit the office of The Alexander Company, the home of the "Alexander Remedy" for Malignant Growths, and found rather an interesting state of affairs.

The Alexander Company pride themselves that they are ethical, and that the "Alexander Remedy" for cancer is only sold to and administered by physicians and under their direction.

These facts and others of equal importance had been recently questioned from a rather high source, and while The Alexander Company seldom reply to criticism they had, considering the source of the criticism, deviated from their rule, and had replied to what they refer to as rank unjust criticism.

As the correspondence, shipping lists and facts of every nature pertaining to The Alexander Company, are open to the inspection of all physicians, we took occasion to make an examination and made some extracts from their reply to the criticism referred to, and as they are so pertinent and sweeping we venture to lay them before your readers.

In the first place, Dr. H. Edwin Lewis, late Manager of the "International Journal of Surgery," now of the "American Medicine," had demanded of The Alexander Company a *statement seriatim of one hundred cases of malignancy treated by them*, and had supervised the preparation of the list, taking the cases as they run, good, bad or indifferent from a date fixed by him. This list designated as a "*Chart Record of 100 Cases Treated Seriatim*" is found on pages 27 to 51 of their pamphlet entitled "Malignant Growths."

The charge was made, That Dr. Lewis was not a practicing physician, and therefore assumed that he was incompetent. The Alexander Company's reply was truthful, and as follows:

"Dr. H. Edwin Lewis is an active practitioner, having an office in the St. Paul Hotel, Columbus Avenue and 60th Street, Manhattan, New York City, where he spends his forenoons; he is also Managing Editor of the American Medicine," etc.

This disposes of the first criticism.

The second criticism was, that no physician would delay an operation for six weeks in order to administer the "Alexander Remedy" for that period before an operation, as stated in an advertisement in the "Charlotte Medical Journal" and the "New York Medical Journal," reading as quoted from a prominent surgeon: "I will not quarrel with the Alexander people, as to whether it is my knife and my skill, or the Alexander Treatment, but I do know that when I use the Alexander Treatment six weeks before and after an operation, I never have a recurrence." The Alexander Company then quoted extracts from *ten letters* from physicians who delayed operation from ten days to six weeks in order to give the "Alexander Remedy" before they operated.

While the above quotation from the journals named is true as to the surgeon in question, the Alexander Company prefer to stand by the following wording:

"During ten years we have *never* experienced or had *reported* to us a *recurrence* after a patient had been cured by the Alexander Treatment, or had received the Alexander Treatment six weeks prior to an operation, and the treatment administered following the operation."

"Physicians use the "Alexander Remedy" before and after surgical interference to assure so far as possible against recurrence."

UNGT. ASEPTINOL COMP.

Indicated in acute and chronic cutaneous diseases, as Eczema, Erythema, Herpe Acne, Burns, Scalds, Pruritus Vulvæ, Pruritus Ani, Itching and Bleeding Hemorrhoids, Erysipelas, Varicose Ulcers, Infantile Scalp Diseases, etc.

Put up in 50c and $1.00 Jars

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Antiseptic, Deodorant, Astringent, Soothing, Healing. Efficacious in Leucorrhea, Pruritus Vulvæ, Vaginal Catarrh, Ulcerations of the Mucous Membrane, and in Abnormal Discharges. Valuable as a gargle in Tonsillitis and other Throat affections.

Put up in Quarter-Pound Boxes Price, 50c.

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TRADE LAXOL MARK.

When the Pyramids were built, Castor Oil

was an old and well-known Laxative. Its *value* has never been disputed. Its repulsive *taste* is the terror of every child. We have robbed it of its *one* objection.

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In their answer to the criticism the Company stated: "Physicians say they have accomplished results with the "Alexander Treatment" otherwise unattainable"; we base this statement, and all our claims entirely upon physicians' statements, their letters being on file, and subject to the inspection of any interested physicians."

They further state in their denial: "We do not solicit, or accept statements, from 'grateful patients'. We do not 'exaggerate'; we do not have to. We quote only *what physicians say* of our remedy. These state-

GASTROGEN TABLETS

A Neutralizing Digestive

Sample and formula mailed to physicians upon request.

BRISTOL-MYERS CO.,
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ments of physicians are unsolicited; they come to us 'off the bat,' as a result of their daily treatment of cancer patients; as a rule physicians are delighted to have some remedy that

Relieves pain without morphine,

Dispels the odors incident to external sores,

Alleviates and prolongs life, where a patient cannot be cured,

When used in connection with surgery, prevents a recurrence; and so far there is no contention as to which is entitled to the credit, the surgeon or the remedy; we say both."

"We are scientific in that Creosote has long been 'indicated' for cancer"; the only obstacle to its use has been that it could not be taken into the stomach. It was left to our Dr. Alexander to discover that a solution composed largely of modified Creosote and essential oils could be put into the blood in quantities that if taken into the stomach would certainly do great harm. The remedy is injected into the blood through the cellular tissue with seeming impunity."

The answer to criticism continues, "We have remained 'moral and ethical' for the greater part of ten years. Our cases are those reported by physicians only, and have stood the *test* of from *four* to *ten* years. Out of seventeen cases of malignancy brought together under our roof May 24th and 25th, 1907, all are well today with one exception, and that death was not on account of malignancy. At this demonstration for the benefit of New York physicians, Dr. E. Schuyler Clark remarked, 'I have never seen so many cured cancer patients together in my life.'"

"We do not even promise to do again what has been done in the past; we quote what physicians say, and make no promises. There is no "advertising in glowing colors," no "catching at straws," no "raising false hopes," or "causing great annoyance to physicians." On the contrary, we have many regrets from physicians that they had not known of the "Alexander Remedy" before, and confessions of regret that they did not use the remedy when their attention was first called to it.

"The statement 'furnished to and administered by physicians only' is not only sincere, but absolutely true, and it does not refer to the hired physicians in the Alexander Hospital."

"Physicians very largely delegate the labor of cellular tissue injections to trained nurses, or those especially instructed to administer the remedy. This is perfectly legitimate, but it is out of our province. We deal only with physicians."

Every line of the criticism referred to seems to have been answered in a direct and convincing manner, and I took occasion to congratulate The Alexander Company on its showing. It is well worth the time of any physician visiting New York to call upon the Company, and to examine their records in the treatment of malignancy.

Respectfully yours,

S. Olin Hardy, M. D.

925 West End Avenue, New York.

A New Preparation for Hay Fever.

Dr. J. E. Alberts, of The Hague, has directed the attention of the medical profession to a new combination which is astringent and locally anesthetic in effect, but which is non-toxic and devoid of the ill effects of cocaine. The new combination contains one part to twenty thousand (1:20,000) of adrenalin chloride and ten per cent. of para-amido-ethyl-benzoate, made up into a bland ointment, to which has been given the name of Anesthone Cream.

When applied to the mucous membrane of the nares Anesthone Cream has a persistent anesthetic effect which affords marked relief in hay fever. Inasmuch as para-amido-ethyl-benzoate is only slightly soluble in aqueous fluids, its anesthetic action is prolonged. It does not have the poisonous effect of cocaine upon the protoplasmic element of cells, nor does it depress the heart. Furthermore, there is no tendency to "habit" acquirement.

In a tabulated series of cases collected by the Department of Experimental Medicine of Parke, Davis & Company a very large proportion were very much benefited.

Anesthone Cream is supplied in a collapsible tube with an elongated nozzle. A portion of the Cream about the size of a pea is to be applied to the nasal mucosa three or four times a day, or more frequently if necessary, including the time of arising in the morning and retiring at night.—Therapeutic Notes.

Should the Cesarean Section Be Performed for Hemorrhage Due to Vicious Insertion of the Placenta?

Mouchotte gives the result of a study of 183 cases of placenta previa treated by the method of Pinard at the Baudelocqie Hospital. This method is absolute inaction as long as there is no rise of the pulse beyond 100; when this rise occurs rupture of the membranes and the introduction of a Champetier de Rives balloon to act as dilator and tampon at the same time. Out of these 183 cases all but four survived, and 101 infants

RESPIRAZONE (Tilden's)

Specifically Indicated In

HAY FEVER and ASTHMA
BOTH ACUTE and CHRONIC

ELIXIR MALTOPEPSINE (Tilden's)

A Perfect Digestant
And the only satisfactory vehicle
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Salicin and Salicylate of Soda Combinations

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THE new attached twelve-story School and Hospital Building, now being erected, will give a capacity of 380 beds, besides tripling the teaching efficiency of the Institution, by the addition of new Operating Rooms, Amphitheatres and four floors exclusively devoted to clinical teaching.

Courses for the general practitioner, to be entered at any time and for varying periods. In addition to the General and Laboratory Courses and to full work on the cadaver and in the operating rooms, in every branch of Surgery, and Eye, Ear, and Throat Diseases, among others the following **Special Courses** requiring three to six weeks to complete will be given throughout the year.

Infant Feeding and Diagnosis.	Refraction.	Tuberculosis.
Abdominal Diagnosis and Intestinal Diseases.	Bronchoscopy.	Anesthesia.
	X-Ray & Electro-Therapeutics.	Obstetrics.
Tropical Medicine.	Diseases of the Stomach.	Non-Operative Gynecology.
Rectal Diseases.	Cystoscopy (3 courses).	Sero-Diagnosis, etc.

Special descriptive booklets on application.

Frederick Brush, M. D. Medical Superintendent.

left the hospital alive. Of the 83 children which died, many were either not viable, or were so reduced by the loss of blood of the mother that when they came to the clinic, it was not possible to save their lives. Hence, none of them were worth doing a Cesarean section with a view of preserving a living child. Of the mothers who died, one was infected before entry; another died of infection from handling in introducing three different balloons because of bursting of the rubber; another was exsanguinated when she reached the hospital; the fourth died of delay in introducing the balloons. Of the children who might have lived, twelve in number, only five were well developed

when the mothers entered the hospital.—Annales de Gynecologie et d'Obstetriques.

"Robinson's Lime Juice and Pepsin" is an excellent remedy in the gastric derangements particularly prevalent at this season. It is superior as a digestive agent to many other similar goods. (See page xvi, this issue). See remarks on their Arom. Fluid Pepsin also.

The second annual meeting of the American Association of Clinical Research will be held in Boston on September 28 and 29, 1910. Some very valuable contributions on Researches in Medicine and Surgery, in Prophylactic and Anaphylactic Medicine, in Mental Medicine, in Radiotherapeutics, in Metabolism, etc., are promised. There will also be a public meeting.

Tonic Stimulant for the Heart.

"Continued study, particularly of clinical cases, will show that Cactina Pillets is a mild tonic stimulant to the heart, acting both upon the nervous mechanism and directly upon the heart muscle. It promotes cardiac nutrition and overcomes atony of the heart muscle. Cactina has never been claimed to supplant digitalis, nor the other more powerful cardiac remedies. It has been shown, however, time and time again, that Cactina Pillets is especially serviceable in all functional disorders, as well as in certain phases of the common organic lesions."

Fifty Hours' Delay Between Births of Twins.

Dr. C. J. Hill-Aitken publishes in the Transvaal Medical Journal an interesting case in which natural delivery of the second of twins occurred after a fifty-hours' delay. A native woman was delivered of a child at 12 noon on a Thursday. After the birth, labor pains ceased and did not return. The relatives waited patiently until the following afternoon, and then decided to seek European medical advice. The author was sent for, and was told that while active interference was, if possible, to be avoided, his advice would be welcomed. Reaching his patient about 7:30 p. m. the same evening, he found that while no labor pains were complained of the uterus was active, as it could be felt alternately hardening and softening under the hand. The child was alive and active in its movements. Internal examination showed that there was no hæmorrhage from the uterus or from the cord of the first child, that the bag of membranes was unbroken, and that the head of the child was lying at the pelvic brim, which was wide and unobstructed. On explaining these facts to the relatives, the author was pleased to find that they were willing to await the onset of the second labor, as he did not wish to apply high forceps or to perform version in a native hut with scanty hot-water supply and no table on which to place his patient. He also preferred not to take the risk of rupturing the membranes, although such a proceeding might have hastened matters. After putting the patient on dram doses of elixir aletris, four-hourly, and recommending the frequent cleansing of the external genitalia, he left. Labor set in the following morning at 4:30 a. m., and the second child was born at 11 p. m. There was thus an interval of fifty-one hours between the birth of the first and of the second child. The author considers that the case may be considered one of natural delivery despite the administration of aletris, for the womb was by no means inactive when examined. Both mother and children were well ten days after delivery.—The Hospital, London.

Molluscum Contagiosum.

In reporting in the British Journal of Dermatology, June, 1910, two cases (both in middle-aged ladies) of this comparatively rare disease, especially in adults, Dr. E. Graham Little observes that its incidence seems to vary curiously with locality. With the aid of Dr, Arthur Hall, of Sheffield, Dr. Little finds that the disease occurs in England fairly regularly in Manchester, Newcastle, Liverpool, Birmingham, Bristol; more rarely in Portsmouth and Plymouth; and is practically unknown in Leeds, Sheffield, Hull, Nottingham, Lincoln, Shrewsbury, Oxford and Cambridge. In Scotland, it occurs frequently in Edinburgh, Glasgow and Aberdeen. In Ireland, it occurs frequently in Dublin, less frequently in Belfast. The information from Ireland is as follows: Dublin (Dr. Wallace Beatty).—"In ten years, from 1887 to 1897, in the Adelaide Hospital, out of 4,505 skin cases I had fifteen of Molluscum contagiosum—*i.e.*, about 0.33 per cent. I have met with five cases outside hospital; two were in teachers whose duties kept them in contact with the lower classes, one a girl from a charity school, one a doctor, and one a medical student suffering from secondary syphilis. It is more common in children than adults." Belfast (Dr. Purdon).—"It is rare. During the last two years I have seen two cases at hospital, both children, and two in private practice. I should say about one case in 1,000 skin cases."—Dublin Medical Journal.

OPEN LETTER NO. 2.

Baltimore, M. D., U. S. A.

Dear Doctor:

We have at various times called your attention to Resinol products. These are skill ully made and scientifically compounded preparations. They possess medicinal qualities that are both unique and meritorious—so much so that tl ey have attracted the attention of medical men throughout the world, and are kept in stock by the Drug and Chemical trade universally.

There is no other article known that will allay the itching of Eczema and other eruptive skin diseases as will RESINOL OINTMENT, and in treating this disease, in children especially, you must stop the itching or give up the case. RESINOL OINTMENT is equally essential and effective for the relief and cure of Pruritus Ani, and if caused by incipient hemorrhoids will usually abort them. The efficacy of this remedy in this trouble alone has earned it world wide fame and made it indeed a boon to humanity.

RESINOL SOAP, containing in a modified form the same medication, should be used when bathing all cases. Its use for infants and children is most valuable as a prophylactic and hygienic measure. Its merit as a delightfully refreshing bath soap is recognized by discriminating persons of every nationality, especially those who appreciate a healthy skin and complexion.

RESINOL MEDICATED SHAVING STICK is also worthy of your attention and approval, and it also has had most flattering commendation from professional men. Its superior qualities are convincing, and, from a sanitary viewpoint, its utility obvious.

Doctor, we hope for our mutual interest,s sake that you have not ignored these preparations, and if you desire us to send you samples, we will be glad to do so on request.

Thanking you in advance for the opportunity to serve you, we are

Yours very truly,

RESINOL CHEMICAL CO.

P. S.- In writing for samples kindly mention this advertisement.

THE HYGEIA
Hospital and Sanatorium
Richmond, Va.
For Medical Patients Only.

J. Allison Hodges, M. D., Physician-in-Chief.

This Institution, so for as known, is the only one in this country devoted to the treatment of Medical Cases solely.

If upon examination, a case proves to be primarly surgical, or insane, it is referred; otherwise, every modern and approved facility is provided for the treatment of all kinds of *Acute* and *Chronic* Medical cases, under the direction of four Specialists. Single and double bed-rooms; capacity, 55 patients.

The equipment for the treatment of Medical patients, includes, besides the usual hospital facilities, *Baruch Therapeutic Baths, Neuheim Baths, High Frequency and other Electrical Currents, X-Ray, Vibration, Massage*, etc., together with laboratory methods of diagnosis.

The Hygeia has been enlarged four times in eight years, but the present site allowing now no further enlargement, a Suburban Annex, "Rest-a-Bit", situated in beautiful environments, is being arranged for the treatment of Convalescent and Rest-Cure-cases.

"Rest-a-Bit" Annex will be under the same management and medical staff as the Hygeia, and will be open the entire year.

For Descriptive Booklet, address

Miss Henderson, (Ex-Supt. Royal Victoria Hospital.)
Supt of Training School for Nurses.

Bacterial Disturbance of Digestion.—Tibbles, in the London Practitioner, states that in bacterial disturbances of digestion the first thing should be to see that the food is as free as possible from injurious bacterial organisms. The second is to see that the food is of such a character as will not favor bacterial action. Thirdly, moderation in diet, especially of animal foods, is essential. It is not necessary to exclude animal food altogether. Although it is said that animal proteins are more prone to bacterial decomposition than vegetable proteins, it should be remembered that they are both composed of animo acids, frequently the same kinds, although the proportions are different. In fact, the animal proteins of our food were formed out of vegetable proteins. Furthermore, it has never been shown that animal proteins behave in the body differently from vegetable proteins, in spite of the arguments of the vegetarians. Putrefaction in the intestines is directly proportional to the amount of proteins in the food. It is true that Zuntz has demonstrated that more indol is produced from meat than from vegetables. But this is probably due to the fact that vegetable proteins are not so accessible either to the alimentary or bacterial enzymes, and therefore are not so readily decomposed. There is also a difference in the effect of carbohydrate foods, bread, sugar, potatoes, and legumes give rise to most organic acids and gases; on the other hand, rice, sago, tapioca, and arrowroot give rise to comparatively little fermentation. It is therefore advisable that such people should begin their course of treatment with a dietary consisting of roasted or grilled meat, plenty of cooked vegetables, a little milk, rice, sago, tapioca, arrowroot, and a little good red wine, such as burgundy. They should be forbidden to use cheese, most kinds of fish, game, pork, veal, hashed meat, stews, rich gravy soups, meat extracts, pastry cakes, tea, and coffee. As regards medicinal treatment, the bowels should be completely and regularly evacuated. It is a useful practice to combine with the aperient a hepatic stimulant, such as podophyllin, rhubarb, calomel, sodium sulphate, or phosphate. Washing out the stomach may be necessary if there is gastric dilatation. Intestinal antiseptics, such as guaiacol, the salicylates, and naphthol, are very useful. Probably one of the best means of treating the intestinal fermentation is by the administration of sour milk, especially that soured by the Bulgarian bacillus. Tablets have proved unreliable and sometimes inert. The best means of preparing sour milk is by liquid cultures of the bacilli. A rectal injection of whey to which a culture of the Bulgarian bacilli has been added is also of value in some cases.

Case of Bilateral Tubal Pregnancy, with Rupture on Either Side.—Wilson (The Australian Medical Gazette) mentions the case of a patient, a one-para, æt. 30, who was sent into the hospital with a diagnosis of ectopic pregnancy. She was markedly collapsed, with sighing respiration, pulse rate of 146 to 150, temperature of 97°, and extremely pallid. The menstrual period was five days overdue, and two days before admission the patient had been taken with sudden abdominal pain in the right side and had fainted. The following day she had a similar attack, the pain being mostly left sided, and had fainted several times during the day. Abdominal section was done at once on admission and revealed the abdominal cavity full of fresh blood. Both tubes were partly distended with blood clot. The left tube was ruptured in two places about half an inch from the uterine cornu, and the right tube in one place at about the same situation, and bleeding was going on from all three ruptures; but the rupture on the right side did not look so recent as the left sided ones. Both tubes were removed; the ovaries, being normal, were left. There was a recent corpus luteum in the left ovary. After clearing out as much blood-clot from the abdomen and pelvis as possible the peritoneal cavity was filled with saline and the incision closed. The patient was given three pints of saline and adrenalin intravenously before the radial pulse could be counted, but after the first few days recovery was uneventful. There was no history of a decidual cast being passed from the uterus, and owing to the patient's precarious condition the uterus was not curetted at the time of operation. He believes that this is the first case of bilateral tubal pregnancy recorded in Australia, and is of interest because this condition is rare, and also from the fact that the period of gestation in both tubes was the same, and that rupture had taken place in both tubes at the time of operation, apparently on the two previous days. The writer infers that this was probably an example of simultaneous conception in both tubes, from the fact that there was only one corpus luteum seen, and that both sacs were of about the same size and were both ruptured.

Dislocation Between Atlas and Axis—Operation—Recovery.—Wallace and Bruce (Review of Neur. and Psy.) mention the case of a man who turned his head suddenly, heard a click, and then noticed a lump in the back of his neck, and that he could not bend his head under a bar in his

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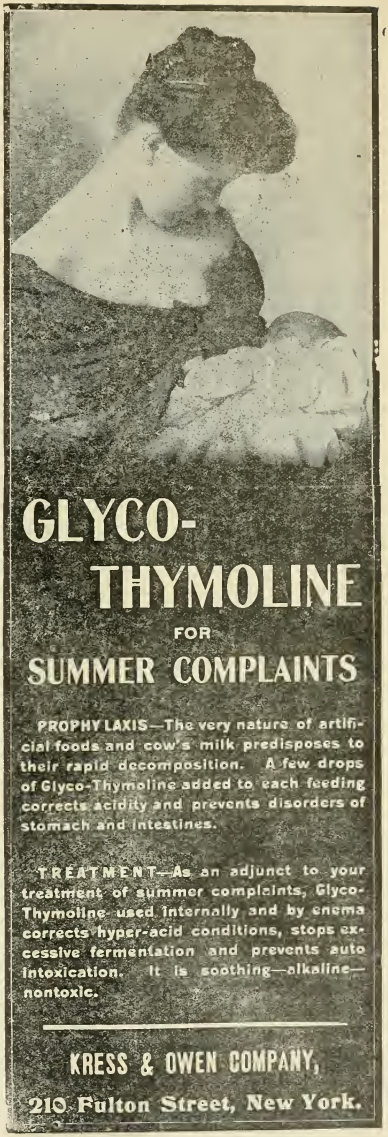
work. There was no paralysis and no pain Later on pain developed in the region of the great occipital nerve. Owing to the stiffness and pain he could not work, and was treated for rheumatism. Later on an X-ray photograph was taken, and it revealed a dislocation of the atlas on the axis. As very slight pressure symptoms were present no operative proceedings were taken. Over five months later he accidentally received a sudden pull on his head by means of a shawl he was wearing. This caused a sudden severe pain on the right side and back of his head. He was unable to lie down. The next day he felt some weakness of the fingers of both hands. This weakness gradually spread up the arms and down the legs. On the following day retention of urine developed. In a short time the arms and legs became completely paralyzed, as well as the diaphragm. The knee-jerk was very active on both sides with clonus and Babinski. The bowels had been confined for a week, and there was persistent retention of urine. Patches of anæsthesia and hyperalgesia were present. The patient could not cough, and his dyspnœa was excessive. Next day the patient's condition was so critical that it was thought that unless the pressure could be removed the patient had only a few hours to live. It was pointed out to his wife that an operation might mean instant death. She was persuaded to accept the risk, and the opera-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tion was proceeded with. The patient was slightly raised in bed, a long towel was placed behind the lower part of his neck and used to make traction upon it in a forward direction. The author then, standing behind the top of the bed and placing his hands below the jaws, made firm traction upwards and backwards. Almost immediately the head was felt to slip into its place with a crunching noise at the same time as the lump disappeared, while crepitus was felt by a hand which was supporting the upper part of the neck. The relief was immediate, and practically complete recovery of all his functions ultimately ensued, only being interrupted by an attack of pneumonia which developed shortly after the operation. A poroplastic jacket was applied for some time, and the patient was finally instructed to always wear a collar capable of keeping the chin well up. The authors state that fracture of the odontoid process appears to be a relatively frequent occurrence in injuries of the upper cervical spine, associated with dislocation between its first two vertebræ; but in the majority of cases it is due to great direct injury. The site of the fracture is usually at the base of the process at its junction with the body of the axis, where there is probably a locus minoris resistentiæ, owing to the persistence of a larger or smaller plate of cartilage, as a remnant of the original line of ossification of the process with the body. The remarkable recovery which the patient made from the grave paralytic symptoms which were present indicates that in all cases, however grave they may appear to be, an attempt should be made to reduce the dislocation.

The Value of Serums and Vaccines in the Treatment of Disease.—Raw, in The British Medical Journal, deals with this question with reference to acquired immunity and then takes up in turn the antistreptococcic sera as used in puerperal septicemia, erysipelas, malignant endocarditis, acute tonsillitis, diphtheria, tetanus, tuberculosis, and then speaks of the use of vaccines from human sources for tuberculosis, pneumonia, staphylococcic infections, Coley's fluid and typhoid fever. The writer believes that the vaccine treatment of the latter disease, in which Wright was a pioneer, is more a prophylactic than a curative measure. The best results are obtained in staphylococcic infections. The writer believes that vaccines do good in pneumonia, but the evidence is still small. In regard to tuberculin from human sources the author has used the T. R. in 110 cases, including tuberculous glands in the neck, tuberculous peritonitis, tuberculous joints and sinuses, lupus, tuberculous meningitis, and genitourinary tuberculosis. In the localized forms of the disease, most of which he believes to be of bovine origin and conveyed to children in infected milk, he is convinced that the T. R. has an excellent effect except in those patients in whom there is some pus encysted in the body, whether in the interior of the joint or in a bone under pressure, or as an abscess in a lymphatic gland. In these cases there is a danger of tuberculin causing dissemination of the bacilli, with a resultant blood stream infection. It is a good rule never to give tuberculin if any pus is localized in the body. In many cases a course of tuberculin has had the effect of greatly reducing enlarged tuberculous glands of the neck, by dispersing the periadenoid tissue and causing a general freeing and loosening of the glands themselves, while in some the enlarged glands have entirely disappeared. If, however, there is any tendency to suppuration the glands must be opened, and in all cases the pus should be liberated. The author is convinced that the extensive dissection of glands in the neck is wrong in principle, and sometimes leads to a general tuberculosis which is fatal. In tuberculous peritonitis tuberculin has a splendid effect, and, combined with operation and drainage, many patients have been completely cured. In genitourinary tuberculosis ten or twelve injections of tuberculin have often had an excellent healing effect when everything else has failed.

Thermosemeiology of Scarlatina.—Barannikow, in the Arch. de med. des. enf., mentions some special characteristics of the rise of temperature in scarlet fever, which will aid in giving a prognosis as to the duration and final result of the disease. The writer's work is based on the records of the Children's Clinic at the Hospital of Kharkoff. There were 209 cases submitted to the author's researches. The curve derived from these cases serves as an indication of the gravity of the evolution during the epidemic chosen for examination. He has worked out the average curve for a period of thirty days. The writer shows that scarlet fever has not ceased to be present in Kharkoff for the past six years, especially in September and October. Most of the patients were between two and seven years of age; the mortality was greatest at about the age of two years. The clinical picture of an infectious disease depends on the simultaneous action of the causal agent and the reaction of the organism against it. Predisposition, heredity and acquired peculiarities, and the kind of bacterial flora play an important role. The typical curve of scarlet fever attains its greatest rise in the

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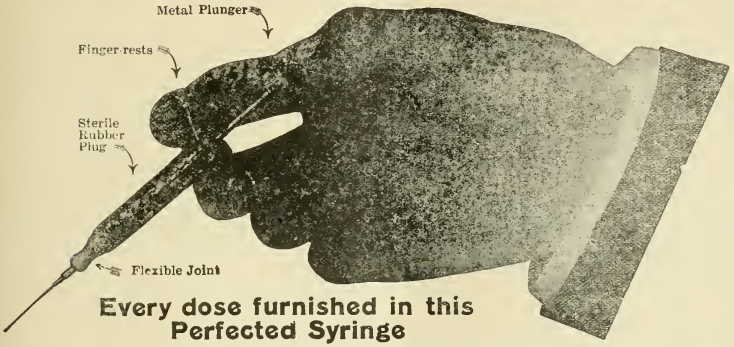

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first three days of the disease, after which it shows a tendencyto lysis. It is possible to predict within welve hours the time when the fever willgo down from observations on the fourth or fifth day. When the curve has been affected by outside influences it is possible to predict before examining the patient the arrival of other complications. Sudden falls of temperature between the third and thirteenth days are constant in every epidemic of this fever. The fall is dependent on certain laws; the rise of temperature in the first days of scarlatina makes it possible to predict precisely when the general character of the curves of the local epidemic are known. Diphtheritic angina appearing with scarlatina causes a rise of temperature, which descends when serum is given in sufficient amount. The principal source of this infection is from chronic cases of diphtheria of the nasopharynx. These patients have immunizing bodies in their blood similar to those of horse serum. They appear to be healthy but disseminate disease constantly. Ulceration of the eyes, nose, and angles of the lips is seen, commencing at the time of desquamation, and being especially tenacious in scrofulous children and those having decayed teeth. Measles has only a slight effect on scarlatina as a complication, Whooping cough has rather a favorable effect on scarlatina.

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Excision of Adenoids and Tonsils.

Steinhardt mentions that a short time ago when the old diagnosis of intestinal inflammation was proved to be erroneous in many cases of abdominal pains and that symptom was called appendicitis it was the fashion to remove the appendix on the slightest provocation, but after the profession woke up very few appendices are now excised and then only for due cause. The same thing exists, in Steinhardt's opinion, in regard to the excision of tonsils and adenoids, and as soon as the physician discovers that a child has them he jumps to the conclusion that the child must be nervous, etc. The worst thing is that most medical men believe the operation so simple that any one can perform it and the result is that more than two-thirds of the tonsils and almost all the adenoids remain after the operation. Steinhardt believes that when it can be proven that these glands retard the physical or mental development of the child, medical treatment should be instituted and, only when that fails we must recur to surgical means; but when we decide to operate the most radical procedure should be employed, as we frequently see that many operators leave large quantities of tonsil and adenoid tissue. Incidentally he records his belief that an anesthetic should be employed in all cases.—Cronica Medico-Quirurgica de la Habana.

Minute Sand-Fly Responsible for Transmission of Pellagra.—Sambon, in Policlinico, Rome, gives the reasons which have convinced him that pellagra is of parasitic origin and that the parasite is transmitted by a minute biting midge, a *Simulium*. The author's study of pellagra in Italy in 1900 established to his satisfaction that the cause must be sought elsewhere than in corn, and his research in London a year ago confirmed the possibility of transmission of the disease by the *Simulium*, and his investigations now being conducted in Italy have, he declares, definitely established it as a reality. Pellagra follows water courses, and only persons much in the open are attacked. The midge in question breeds in water and does not seek to enter houses. The disease is not contagious, and its peculiar incidence in families is due to the fact that those infected elsewhere return home later and are the only ones affected. When all the members of the family are exposed to the bites of the *Simulium* they are all liable to contract the disease. The writer has encountered entire families in which all the members were affected. In one family near Padua there were five children between three and twelve presenting the skin manifestations in the most pronounced form. The manifest connection with breeding places and habitats for the sand-flies, the exemption of inhabitated centers, the season in which the disease appears and the prevalence of the *Simulium* in all the localities examined where pellagra is endemic, are only part of the evidence incriminating these midges.

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W. J. Innes, M. D., F. K. Lord, M. D., Wallace D. Carr, M. D., E. C. Bryce, M. D., Clinical Assistants in Medicine.

A. H. Straus, B. S., Acting Professor of Bacteriology.

Operative Treatment of Apoplectic Stroke.—Franke, in Deutsche Medizinische Wochenschrift, Berlin, advocates operative intervention in cases of acute cerebral hemorrhage, before irreparable changes have been induced from compression by the extravasated blood. The brain seems to be able to stand without serious injury considerable compression if the strain is not kept up too long and if the blood is evacuated before the brain tissue has softened under its direct influence and its toxic action. In a recent case, the autopsy findings when compared with the course of the syndrome impressed him with the conviction that operative treatment after the first shock would in all probability have saved the patient. Puncture of the brain or trephining would have released the blood, especially if a fine metal cannula with holes in the side had been slipped in over the needle and left in the opening for permanent drainage. The writer trephined in the case reported but not until two weeks had elapsed after the hemorrhage; irreparable harm had already been done and the patient soon died. The author makes the trephine opening with the Gigli wire saw and says that the dangers of puncture and trephining are negligible in comparison with those

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which cerebral hemorrhage entails. Minute examination and observation are necessary to locate the site of the hemorrhage; the most apparently insignificant signs must be watched for and noted, for example, slight paresis of the facial muscles, mouth breathing, behavior of the abdominal and cremaster reflexes, which are diminished or abolished on the paralyzed side, the Babinski reflex on the side involved, slight tension of the extremities during passive movements on the sound side, conjugated deviation of the eyes toward the side involved or a history of some preceding slight apoplectic attack and determination of the site of the hemorrhage at that time. He urges that a surgeon should be called in during the first few hours after a serious apoplectic stroke so that the physician and the surgeon can study the case together, locate the hemorrhage and discuss whether the condition permits of operative intervention or is not serious enough to demand it. The puncture could then be done at once in the home; if this fails to give relief, trephining might follow. He does not think that a cautious removal to a hospital would essentially increase the dangers for the patient. By this means the blood could be removed from the brain within two, three or five hours, this period of time being allowed to elapse to permit revival from shock and reduce the danger of serious after-hemorrhage. The practitioner generally is the one who first sees patients with cerebral hemorrhage, and to him the author of this article appeals to help place cerebral hemorrhage on the same plane of successful treatment as perforation of a viscus, stab wounds of the heart and acute peritonitis.

An Aid to Diagnosis in Malignant Diseases.—Royle (The London Medical Lancet) gives the results of the examination of the urine and a determination of the ratio of phosphates to uric acid in cases of malignant disease with the object of ascertaining if this ratio could be of use in diagnosing obscure cases of the latter. The author summarizes her work as follows: From the results obtained and from the figures quoted it appears that an examination of the urine will prove of great value as an aid to diagnosis in obscure cases of cancer, especially in cancer of the alimentary canal and abdominal organs. In order to apply this test it is necessary to estimate the uric acid and phosphate content of the urine and to consider the figures separately, and then to take into account the ratio of phosphates to uric acid. Royle considers that her figures establish the following facts: (1) That in cases of cancer the uric acid is usually higher than is found in healthy cases under similar conditions. (2) That the output of phosphates in the urine in the majority of cases of cancer decreased when compared with healthy individuals. (3) The ratio of phosphates to uric acid is almost invariably reduced in malignant disease below that found in health, any ratio below 4 being suggestive, especially if it remains low on several occasions, and any ration below 3 is almost diagnostic of malignant disease or of a blood disease, unless further work shall prove that the same is found in other conditions. Before these conclusions can be definitely adopted it will be necessary to determine how far they are true of other forms of cachexia and what their relation may be to the secondary forms of anemia usually present in malignant disease.

Salt in Pregnancy Nephritis and Eclampsia.—Le Play, in Semaine Medicale, Paris, gives the details of eight cases of pregnancy nephritis and two of eclampsia in which from 5 to 13 gm. (80 to 200 grns.) of salt solution were given systematically every other day and apparently with the best therapeutic results. The aim was to induce a flow of fluid into the alimentary canal, thus reducing the blood pressure and at the same time washing out into the digestive tract a quantity of toxic products which could then be harmlessly eliminated. There was no perverse by-effect in any case and the general condition seemed to improve.

By-Effects with Ehrlich's "606."—Bohac and Sobotka, in Wiener klinische Wochenschrift, Vienna, report the occurrence of a set of symptoms in three out of fourteen patients being treated with Ehrlich's new remedy for syphilis. These unexpected by-effects were retention of urine for from half a day to over nine days, abolition of the knee-jerk and of other common reflexes and extreme rectal tenesmus with tenacious constipation. This syndrome occurred in a

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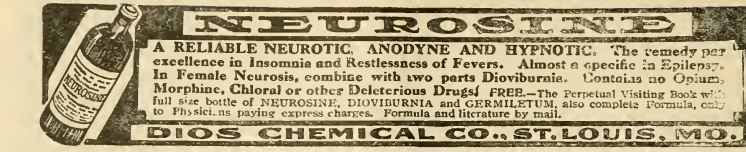
more or less pronounced form in these three patients with moderate doses, suggesting that the symptoms might have been alarming if the dose had been a little larger, as they indicated a paralysis or inhibition of certain nervous elements. The syndrome resembled that observed in some cases after administration of atoxyl, but impurities in the drug may have been responsible for it. The experiences related are from the dermatologic clinic at Prague in charge of Kreibich. In other respects the experiences confirmed the claims made for the new remedy by Ehrlich and others. And notwithstanding the untoward by-effects observed in three out of fourteen cases, the clinic does not intend to abandon the use of the remedy but will reserve it for the cases in which the ordinary measures are contraindicated for any reason or have failed completely. It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will also be used in cases in which the pains or malignant character of the disease, threatening serious functional disturbances or disfigurement as from numerous localizations of malignant syphilis, compel urgent measures—the patient being always fully informed as to the dangers and "untriedness" of the new method of treatment.

Foreign Bodies in the Heart.—Zesas, in an article published in Fortschritte der medizin, Leipsic, reports 118 cases of foreign bodies in the heart which he has found on record. In 54 cases the foreign body was a needle, in 38 a bullet, but the list includes also nails, a thorn, a gold plate, an iron peg, splinter of wood or bone and a hairpin. The astonishing tolerance of the heart for a foreign body loose in its interior is demonstrated anew by some of the cases. Pointed objects, however, generally work into the heart wall and cause such disturbances that an attempt to remove them is justified and the list shows that this has been done in many cases. In 12 cases the foreign body had evidently reached the heart from the alimentary canal, in four through the blood vessels, and in one from the air passages. In only 96 had the projectile or other foreign body been propelled through the chest wall.

Intermittent Limp.—Muskat, in Therapie der Gegenwart, Berlin, states that the disturbance known as intermittent limp is not limping—no attempt is made to walk while the attack lasts—and he adds another to the already long list of descriptive terms that have been proposed for it. In differentiating the condition it is important to exclude disturbances due to flat-foot, sciatica and articular rheumatism, and also the angiospasm liable to accompany flat foot. Ortner has observed similar angiospasms in the intestines which he ascribed to use of tobacco, as excessive smoking brought on the spasms and abstention from tobacco abolished them, while they recurred on resumption of tobacco. Nicotine seems to act on the vasomotors and it may lead to pathologic changes in the arteries, especially the changes which entail intermittent limp. The Roentgen rays may reveal calcification of the arteries with the loss of the pulse in the foot, but even in these cases much benefit may be derived from light massage, the iodids, warm baths, the high frequency current and four-celled electric baths, with scrupulous avoidance of further injurious influences, nicotine, alcohol, worry, mental or physical overexertion, chilling, etc. These measures may arrest the process and ward off impending gangrene and a cure may follow unless the calcification of the arteries has progressed too far. The changes in the artery generally begin at the toes and work upward. Payr has reported a case in which gangrene was averted by implanting the femoral artery in the femoral vein.

Lay Criticism of Medical Colleges.

It is only the man of limited horizon who voices full approval of the words of that self-constituted censor of Missouri medical colleges who declared there were but two in this State worthy the name. While I see much in medical colleges, particularly those of the proprietary type, that is not praiseworthy, yet, it was most unfair for one man and a layman at that, to give wide publicity to the opinion that the majority of medical colleges in this State were anything but worthy endeavors. The newspapers eagerly print such statements and their readers, following the unwarranted assumption of one layman and knowing nothing whatever of actual conditions, arrive at a conclusion that cannot but be an unjust one.

Every prospective physician cannot meet university requirements nor can every medical college affiliate itself with a large and influential educational institution. As I pointed out in these columns some months ago, the supply of university graduates is not sufficient for the growing needs of this country and other sources must be drawn upon to provide physicians. All physicians cannot be ultra scientific and it were well that they cannot be, for scientists are lamentable failures as physicians. The public demands physicians who can cure its ills—beyond that it asks nothing. The keen edged knife of competition will sooner or later mow down the unworthy and the poorly equipped and thus take care of the public welfare far better than Carnegie representatives could ever dare hope to do. —Medical Era, St. Louis.

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The Pancreatic Reaction.—Russell (British Medical Journal) states that a positive Cammidge reaction may be obtained from the urine of persons in good health; that it may be obtained from the urine of persons suffering from a great variety of abdominal disorder or disease; that it may be present in other diseased conditions; that it may be present when autopsy shows that the pancreas is not the seat of any anatomical change. All this to the physician and to the pathologist definitely excludes pancreatitis as the cause of the Cammidge reaction. That the reaction is a reliable guide to the condition of the pancreas has not been borne out by the author's observations; in fact, they seem to negative such a contention. Even putting pancreatitis out of account, it might still be contended that the substance found in the urine was absorbed from the pancreas; but the pancreatic enzymes are proteid substances, and

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the substance in question is a carbohydrate. But even were such absorption the source of the substance, we should require to recognize that the absorption took place in so many different conditions, is so variable in amount, and so apparently erratic in the times of its appearance, that its presence as an aid to abdominal diagnosis is entire negligible, and if depended on may be wholly misleading—Cammidge reports the records of 1,500 samples of urine derived from 1,475 cases. The cases he divides into eight groups: 1. Acute pancreatitis, all thirteen cases gave a positive pancreatic reaction. 2. Chronic pancreatitis; *a*, associated with gall-stones or malignant disease, fifty-six per cent., 149 of 264 cases, gave a positive reaction; *b*, secondary to intestinal disease and gastric or duodenal ulcer, 403 cases, 211 (fifty-two per cent.) gave a positive reaction; *c*, associated with disease of the heart, vessels, or lungs, six cases, all of them gave a positive reaction; *d*, secondary to metastatic deposits, of ninety-two cases, thirty-four (thirty-seven per cent.) gave a positive reaction. 3. Pancreatic calculi, of four cases three gave a positive reaction. 4. Pancreatic cysts, of four cases two gave a positive reaction. 5. Pancreatic infantilism, one case gave a positive reaction. 6. Malignant disease of the pancreas, of seventy-three cases of cancer of the pancreas, twenty-four (thirty-three per cent.) gave a positive reaction. 7. Miscellaneous, of 467 cases 461 gave a positive reaction. 8. Normal, none of fifty cases gave a positive reaction.

Treatment of Acute Gonorrhoeal Urethritis.—Miles (Edinburgh Medical Journal) describes the apparatus used by him in the Bier treatment of acute gonorrhœal urethritis. It consists of a glass cylinder about seven inches long and two inches in diameter, closed at one end, and with a small lateral tube near the blind end. Over the open end is fitted a conical rubber flange with a thick rubber ring, like an umbrella ring, let into its narrow free edge. This thickening of the margin of the flange is of importance in rendering the apparatus air-tight. The bell is exhausted through the lateral tube by means of a metal pump attached to a short piece of stout rubber tubing, over which an ordinary clamp is slipped to occlude the tube after the air has been withdrawn. After the patient has passed water, the flange is applied around the penis as far back as possible, care being taken to retract the hair so that it is not included in the constricting ring. An elastic band is then applied over the flange to ensure close apposition with the skin. The bell is now passed over the penis, the wide (forward) end of the flange slipped over it, and the air is withdrawn by the aspirating syringe, and the tube clamped. Three or four strokes of the piston usually produce a sufficient vacuum. The penis at once becomes turgid, swollen, and bluish in color, the appearance being comparable to that of the organ in a state of priapism—after a spinal injury. If there is even a moderately profuse discharge, some drops of pus exude from the meatus. The proper amount of suction causes no pain or discomfort; if pain is produced the vacuum is excessive, and some air should be allowed to enter by slightly relaxing the clamp. In from ten to fifteen minutes the clamp is removed, and air allowed to enter the bell, and after an interval of five minutes it is again exhausted. This is repeated two or three times, the whole seance lasting about an hour. The bell is applied once daily. *Results.*—From an experience of over 300 cases of acute gonorrhœa of the anterior urethra treated by this method, the author concludes that it is more cleanly than that by injections, and that the patient can more easily be instructed to carry it out safely and efficiently for himself. It is a further advantage that the method is available in cases of phymosis, in which the œdema of the prepuce precludes the use of injections. If the objection is raised that it occupies a whole hour every day, one would reply that the average patient is just as likely to be able to devote this time to it as to find favorable opportunities of regularly administering injections three times in the day.

Venesection in High Blood Pressure.

In cases of very young men with very high and obstinate blood pressures, I think that venesection has an indubitably good effect. I have had the most grateful letters from hyperpietic patients telling me that for years they had not felt so well as for some months after each time they had been bled. —Professor Clifford Allbutt.

The Charlotte Medical Journal

VOL. LXII CHARLOTTE, N. C., OCTOBER, 1910. No. 4

Should a Pregnant Woman Nurse Her Child?

By L. C. Allen, M.D., Hoschton, Georgia.

Among the laity there is a universal belief that the milk of a pregnant woman is very injurious to the child. Should a baby nursing such a woman become ill, no matter what the nature of the illness is, it is always attributed to the mother's milk. Under such circumstances relatives and neighbors are ready to censure the mother, sometimes severely, because she had not weaned the child. Not a few physicians seem to share this old belief that pregnancy renders the milk of a woman unfit to nurse, and changes it in such a way as to make it likely to cause serious illness in the baby. What are the facts? Holt says: "The milk of a pregnant woman is generally small in quantity and poor in quality, especially fat. It is not known, however, that there are any other differences." Other standard authors teach practically the same thing. The milk of a pregnant mother is not likely, therefore, to make the infant sick. There is nothing in the milk to hurt the baby, but it may suffer for lack of nutrition, and become ill on that account.

According to my experience it is bad practice to wean an infant before it is eight or nine months old, simply because the mother becomes pregnant. A nursing mother seldom becomes pregnant before the baby is at least four to six months old. Under such circumstances, if the mother is otherwise healthy, it is best to allow the baby to remain at the breast some months longer—until it at least approaches the proper weaning age, which is nine to twelve months old. If the mother does not become pregnant until the infant is seven or eight months old, it may nurse on until it is nine or ten months of age. If the child is small and delicate, it had better be kept at the breast longer; if it is vigorous and large to its age, it may be weaned earlier.

I have often been called to attend infants that had been weaned at the age of four or five months, because the mother had conceived, and such infants always give much trouble. They become ill immediately after weaning almost invariably. They always have indigestion, and diarrhael troubles, and, if the weather is warm, they generally develop entero-colitis, or cholera infantum. A very large per cent. of them die.

While it is true that the milk of a pregnant woman may not be all that is desired, either in quality or quantity, to properly nourish the child, yet it is still a great deal better than cow's milk, or other artificial food. My plan then is, not to wean the baby too quickly, but if, on investigation and trial, it shows symptoms of poor nutrition, to supplement the mother's milk with modified cow's milk, and other suitable forms of food.

Cervical Rib: Report of a Case.

By Henry Norris, M.D., Surgeon to the Rutherford Hospital, Rutherfordton, N. C.

It has only been within the last few years that cervical ribs have been removed by surgeons, as formerly they were merely regarded as anatomical anomalies encountered only in the dissecting room; but since the discovery of X-rays and the numerous skiagraphic examinations made of thoraces in pulmonary and cardiac diseases it has been found that cervical ribs are not so uncommon as was formerly supposed. It is very probable that only a small percentage of these anomalous ribs give rise to any symptoms, and unless they are discovered by X-rays many a possessor of an extra rib or two goes through life unaware of the fact.

The symptoms vary in degree from an occasional tingling or neuralgic pain down the arm on the affected side with a palpable tumor in the neck, to severe constant pain, loss of function, œdema of the arm and even gangrene of the extremity, the degree of nervous and vascular disturbance depending on the position, size and attachment of the rib, as well as the amount of adipose tissue present, the general well being of the patient, and the occupation.

In making the diagnosis certain other tumors of the neck must be first excluded, and of course if we have X ray facilities at hand it becomes a very simple matter. Excision of the rib is readily accomplished and I am not aware of any recorded fatalities attending its performance. An incision is made parallel with the clavicle or an oblique vertical incision between the sterno cleido-mastoid and trapezius muscles, or a combination of these two as the operator may deem best. Care must be taken not to make undue traction on the brachial plexus which should be drawn outward and upward while the artery is pushed downward. As in all operations on the neck it is desirable to secure perfect hæmostasis. The rib may be removed by bone forceps, chisel or saw.

Mrs. X. Y. Z., age 34 years, wife of a physician.

No family history of tumors or deformities. Father died of acute indigestion aged 60 years. Mother died of cardio-renal disease aged 69 years. Patient had pertussis in early childhood; diphtheria at the age of 14 years; malaria when 28 years old. She has had seven children, labors normal.

Physical Examination.—Well nourished, well developed woman of fair musculature and moderate amount of adipose tissue. Heart, lungs, and kidneys normal. Lacerated cervix and retroversion of the uterus. Hæmoglobin 75%; red blood cells 3,500,000; white blood cells 8000.

Affected Region.—On inspection both sides of the neck are symmetrical. On deep palpation on the left side about one and one-half inches above the clavicle there can be felt a small, rounded, immovable protuberance, pressure on which causes pain to radiate down the left arm to the finger tips, the pain being most marked at the elbow and following the course of the ulnar nerve. The overlying tissues are freely movable and there are no alterations of temperature or sensation. There is no atrophy of the arm and functional use is good. The patient states that at the age of puberty she noticed that her left arm was not as strong as the right and that her fingers would cramp frequently on the affected side and that certain movements of her arms, especially fixing her hair, produced pain.

For twenty years pain has been more or less constant, though at times patient would be entirely free from it, and it varied in severity, becoming much worse and extending up the left side of the neck and head when she was run down. The patient had been treated for neuralgia with but little relief and for the last few months she has suffered so much that it has been necessary to give her morphine.

When the condition was explained to her she readily consented to operation which was performed on April 22, 1909, under ether anæsthesia. An incision two and one half inches long beginning at the posterior border of the sterno-cleido mastoid muscle was carried downward to just above the clavicle paralleling this bone. The superficial fascia and adipose tissue was divided and reflected and the external jugular vein was doubly ligated and divided. The posterior belly of the omohyoid muscle was cut and the anterior trunk of the brachial plexus exposed. The subclavian artery was found highly situated with the cervical rib lying between it and the vein, while the anterior border of the anterior scalene muscle was attached to the tip of the rib. The scalene muscle was divided and the rib excised in its entirety. The omohyoid muscle and superficial fascia was sutured with fine chromacized cat-gut and the skin was closed by a sub-cuticular suture of silk worm gut without drainage.

The wound healed by primary intention and the patient left the hospital in one week. For several weeks after the operation she had slight pain radiating down her arm. At present time, sixteen months after operation, she expresses herself as entirely well and free from pain.

Acute Unilateral Septic Infarct of the Kidney, with Report of a Case.*

By Charles R. Robins, M D , Richmond, Va.

"It is not well understood as yet by the profession that in persons apparently in good health, septic infarcts of the kidney may be caused by bacteria, usually colon bacilli, circulating in the blood, and that the acute cases of this form of hematogenous infection can present a typical picture of certain of the grave abdominal emergencies, —appendicitis, cholecystitis or visceral perforation with abdominal tenderness and rigidity, vomiting, high pulse, temperature and leucocytosis."

This opening paragraph of an article on this subject by Dr. Farrar Cobb in the Annals of Surgery of November, 1908, is an excellent introduction to the study of this most interesting surgical condition. An article by Dr. George E. Brewer, of New York, in Surgery, Gynecology and Obstetrics for May, 1906, presents this subject in a most complete manner and is doubtless the best exposition made, and includes a series of animal experiments which deal particularly with etiology. In Johnson's Surgical Diagnosis just published it is considered quite fully and clearly, this being the only complete text-book description which I have seen.

A recent case occurring in my own practice was in many respects quite typical and therefore interesting, especially as it throws some light on some of the problems which would naturally suggest themselves.

Case No. 14–560. Private Records.

Mrs. J. G. B., age 23, white, female, married 8 years, 3 para, 0 miscarriages. Was taken 5 days previous to my seeing her with a severe pain in the right iliac region. Her physician tells me that there was a distinct localized tenderness over the region of the appendix with muscular rigidity and slight elevation of temperature and pulse. There was no nausea on the

*Read before the Tri-State Medical Society, Richmond, Va., February, 1910.

first day, but on the second day it was fairly well marked. Under treatment she became better, temperature became normal, pain subsided and patient appeared to be entering on a satisfactory convalescence. On the morning of my first visit patient was taken suddenly with a violent pain in the right hypochondrium, the appearance of a tumor and a temperature of 102. The pain was so severe as not to be controlled by several doses of codeine. When I saw her the abdominal muscles were rigid especially on the right side, pain, severe tenderness over McBurney's point, and in the right hypochondrium there was a distinct tumor, very tender on pressure, extending down to level with the umbilicus and of a somewhat ovoid shape. On the next morning patient entered Memorial Hospital. Examinations of several catheterized specimens were negative except for a slight trace of albumen. She had a leucocytosis of from 22,600 to 31,400 in three counts on separate days with a gradually ascending percentage of polys from 80 to 85. Her history preceding this attack shows that since the birth of her last baby, eighteen months previous, her health had not been good. She had had hæmorrhages for three hours after the birth, and since then has felt weak and badly and run down and complained constantly of pain in her back and right side and at intervals of two or three months had attacks of pain in the right side of her abdomen which were sometimes followed by a great deal of soreness, but she had no vomiting and had not noticed any change in her urine.

In view of the fact that she had a persistent point of tenderness at the appendix and of the negative findings in the urine, it was determined to make a right rectus incision for exploration and on the third day after entering the hospital and the eighth day of her attack this operation was performed. Her pulse had gradually ascended from 102 to 120 and temperature presented a daily maximum of 103 in the afternoon with a morning remission, but there were no chills or sweats.

The appendix showed well marked signs of inflammation, was enlarged, hardened and adherent, and was removed in usual manner. Examination of mass in right hypochondrium showed it to be a very much enlarged and inflamed kidney displacing the hepatic flexure of the colon downward and inward. The abdominal incision was closed without drainage and the patient turned and an incision made somewhat parallel with the 12th rib and pointing to the anterior superior spine. The kidney was readily exposed and the fatty and fibrous capsules incised. A pair of scissors were then thrust into the substance of the kidney and the blades separated and withdrawn and followed by an exploring finger. Two pockets of pus were found and evacuated, the finger being carried to the pelvis of the kidney. The pus was quite thick and creamy but not large in amount. The wound was packed with gauze and partially closed.

It was thought at the time that the chances for the patient would be better with incision and drainage of kidney to be followed later by nephrectomy if necessary, which would also afford time to treat the kidneys and secure a larger flow of urine, it then being quite scanty.

The patient reacted nicely from operation, was relieved of pain but continued to run a high temperature, going up to nearly 104. Under treatment the amount of urine increased to slightly above normal, and contained a large quantity of pus draining down from the kidney. The leucocyte count was 24,400 with polys 87%.

As the patient was quite weak and appeared to be getting worse rapidly it was determined to do a nephrectomy, and this operation was performed six days after the first operation and on the fifteenth day of the disease. The original lumbar incision was enlarged and the line of cleavage made between the fatty and fibrous capsules. In the previous operation the kidney was seen covered over by only a thin layer of peritoneum and it seemed to me the danger of rupture into the free peritoneal cavity would be very great if an attempt were made to remove the fatty capsule also. The kidney was enormously increased in size and extended from the diaphragm to the right iliac fossa. Enucleation was accomplished after some manipulation and the kidney delivered on the back. The ureter was clamped and cut and then the blood supply and the kidney removed. The ureter was swabbed out with carbolic acid and alcohol and anchored in the lower portion of the wound, and the blood supply ligated with heavy silk, which was left long for traction and removal. The bed of the kidney was drained with tube and gauze and the wound partially closed.

The kidney was split open and the characteristic infarcts showed up quite plainly, notwithstanding the traumatism from previous operation. The upper third of the kidney alone was affected, although the whole kidney was hyperemic and enlarged. Numerous small abscesses could be plainly seen within the darkened area.

The patient reacted fairly well from the operation but developed a partial suppression of urine which became almost complete. This had been somewhat anticipated

on account of the fact that only a third of the removed kidney had its function destroyed. In the twelve hours following operation she secreted only three ounces, in the next twenty-four hours, five ounces, in the third twenty-four hours, five and a half ounces, in the fourth twenty-four hours, nineteen ounces, in the fifth twenty-four hours, eighteen ounces. After that compensatory polyuria was established and there was no further trouble. During this period she had become edematous and suffered from headache, burning in epigastrium and her breath had a urinous odor. She was treated in a most vigorous manner by sweating and the symptoms subsided when normal amount of urine passed. After the first operation the urine contained a great deal of pus, and after the second operation hyaline and granular casts were found in abundance together with pus casts. The presence of pus after removal of affected kidney was somewhat puzzling, especially as the urine had been free of pus previous to the first operation. The presence of pus casts suggested a pyelitis in the left kidney but this was not proved, and there were no objective symptoms to indicate such an involvement. The temperature did not drop suddenly after nephrectomy, but in four days had reached normal in the morning with evening temperature about 100. She developed an abscess at the site of hypodermoclysis which gave a temperature of 102, which however quickly subsided after evacuation, but an evening rise to 100 persisted for three weeks after last operation. The leucocyte count was made every other day for a period of three weeks after last operation and the readings were as follows:

NO.	LEUCOCYTES	POLYS
1.	25000	90 per ct.
2.	14600	90 "
3.	32800	90 "
4.	32400	88 "
5.	32400	83 "
6.	26000	83 "
7.	27800	87 "
8.	17800	82 "
9.	14200	79 "
10.	11600	80 "
11.	17800	70 "

Reading number 7 was made on the day the abscess from hypodermoclysis was opened. Patient was discharged forty-five days after entering hospital with normal urine, leucocytosis and temperature, and in good physical condition. This was thirty-eight days after nephrectomy.

This case derives its special interest from the fact that it belongs to a class which as yet has received slight attention in literature. There are doubtless more such cases than the records indicate, because the lesion is one which may be overlooked or the pathology may be misunderstood and the case regarded as hopeless. Brewer reports 13 cases in a period of 10 years, Cobb 8 cases in a period of 6 years. I have reversed the usual order by reporting the case first, but it seems to me that the inductive method is the best method for study. I shall now briefly call attention to what seems to me the more important points to be learned from this case, as compared with the literature on this subject.

Etiology.—Any of the pus forming bacteria may act as the infective agent, but the bacillus coli is the most frequent. A kidney which has been injured is more likely to become infected. The absorption may take place from some distant and inconsequential disease as furunculosis, or it may develop from some condition in the puerperium or other grave condition, but the most striking feature is that this condition may and most frequently does arise in persons apparently in perfect health. In this case there was no history of trauma, the puerperal history was vague but indicated a possibility of infection from that source, but the most apparent etiological factor was the appendix. Her history indicated a chronic recurrent appendicitis and the findings at the first operation showed that there had been an appendicitis, and from the description of her case and the findings, I am of the opinion that in this particular case the appendix was the primary seat of the infection. I regret that the pus was not examined for organisms.

Pathology.—Without burdening you with a description of the pathological lesion which the name implies, the most interesting and vital point is that the localization usually takes place in one kidney without involving any other organ. We are so accustomed to regard embolic processes as being generally distributed that this is a difficult point to grasp, but is most important because a successful removal of the affected kidney enables the surgeon to save what would be otherwise frequently a hopeless case.

Symptoms.—There is usually a sudden onset, often with a chill, fever, rapid pulse, marked leucocytosis, prostration and evidences of a septic process. Pain is very constant and often resembles acute abdominal lesions, especially as it is associated with vomiting and marked abdominal rigidity. In a few days the kidney becomes increased in size and may be distinctly palpated in favorable subjects.

Diagnosis.—The difficulties of diagnosis are very great in many cases. The onset

and symptoms may resemble acute abdominal lesions so closely as to be very misleading. Especially is this true in those cases which are not common and which includes this case reported by myself, where the urinary findings are practically negative. In other reported cases the diagnosis has often been obscure and operation has been undertaken for other conditions. In such cases an exploratory rectus incision is to be advised.

The principal points of diagnosis are the urinary findings, consisting of pus and blood, tenderness in the costo-vertebral angle and a palpable tender tumor. With the exception of the tenderness in the costo-vertebral angle the diagnostic signs may be lacking.

Treatment.—Brewer reports six cases of drainage with five deaths and seven nephrectomies with one death. Cobb reports eight cases, all of which recovered, in which two were drained, one recovered without operation on the kidney and five had nephrectomies performed. There can be no doubt but that nephrectomy is the only operation to be advised. In the cases which were drained and which finally recovered the convalescence was very tedious and secondary operation sometimes was required. In the case reported here there was absolutely no improvement from drainage and a second operation became imperative in a few days. It seems to be already well established that some cases will recover without operation and others run a chronic course. This, however, does not alter the indication, because without a prompt nephrectomy the rate of mortality will be very high, with it very low. Should the involvement of the affected kidney be not great a partial nephrectomy may be considered but it will be difficult to fix a dividing line. If the work on the sound kidney tends to threaten suppression, the skin offers the best field for elimination.

The Contribution of Animal Experimentation to Clinical Medicine.*

By Henry A. Christian, Boston. Heresy Prof. of the Theory and Practice of Physic and Dean of the Faculty of Medicine, Harvard University; Physician-in- hief, the Carney Hospital, Boston.

Mr. President and Members of the Tri-State Medical Association of Virginia and the Carolinas:—

It is an honor highly esteemed by me to have been invited by your President to deliver before you the Address in Medicine, an honor enhanced by the facts that your meeting is held in the Capitol of this Commonwealth, and that the invitation was extended by a South Carolinian, your President, and transmitted from the old North State by your Secretary to my present home in Massachusetts. Moreover it is a very great pleasure to come here, for as a Virginian I welcome this opportunity of revisiting my native State and mingling with the medical leaders of Virginia and the Carolinas.

I have chosen to speak to you on some of the relations of animal experimentation to medicine, since much of the recent progress in medicine has been founded on the results of animal experimentation. It is important that the medical profession should recognize this fact, because in recent years in certain parts of the country a most active campaign has been developed against animal experimentation, seeking to limit its practice on the grounds that useless cruelty to lower animals is perpetrated by physicians in the name of science, cruelty because animals are submitted to tortures and useless because from animal experimentation medicine has received no advance and man no benefit. These charges largely emanate from sincere but misguided enthusiasts, ignorant of the nature and benefits of animal experimentation, and are best met by spreading among the people general information about the aims and ideals of medicine, its methods and the part played by animal experimentation in them. To you of the South this conflict has not yet come home to any extent, and it may never come into these States if the campaign of education is begun early. For such a campaign you have now available those most excellent papers published in the Journal of the American Medical Association under the auspices of the Council on the Defence of Medical Research. In these you may read of the contributions of animal experimentation to various branches of medical science and medical practive, and these papers should have wide circulation among both physicians and general public. It is the duty of physicians to inform the public of the concrete advances in medicine that we owe to animal experimentation in order that the public may know what benefits have come from such work. Furthermore the general public should be informed of the real nature of these experiments and of the very minimal amount of suffering brought to animals by them in proportion to the vast amount of good that has accrued and is accruing to the human race from animal experimentation. But it is not my intent to occupy your time in preaching to you of what you should do; the sermon is not needed by this audience I am sure, nor

*Address in Medicine before the Tri-State Medical Association of Virginia and the Carolinas at Richmond Va., Feb. 1910

is it my intent to marshall before you the recent advances in medicine which have resulted from animal experiments. Instead I propose to discuss how animal experimentation as a method has extended and is extending modern clinical investigation.

Far from being a finished science, medicine is, as you all know, still in the making. We can anticipate in the next few decades continued progress, the way no doubt marked by many discarded theories, but still a way leading eventually to an ultimate solution of our present problems with each time a wider vista or new problems to be solved. Retrospection along the path already travelled shows much change in our methods of investigation, so that today we study our problems very differently from the way our forefathers studied theirs. This is true of every branch of medical work, but as my interests are chiefly in clinical medicine, I will confine my attention to that field, and I have selected only a few phases of that to illustrate the modern methods of investigation as compared with the old.

Epidemic cerebrospidal meningitis illustrates well these modern methods and shows how animal experimentation aids clinical investigation. A trifle more than one hundred years ago, one hundred and five to be exact, as the result of epidemic outbreaks of meningitis in Switzerland and in New England opportunity for the study of this disease came independently to Vieusseaux and to Danielson and Mann. To them is due the credit of first delineating the clinical picture of meningitis, and showing that its cause lay in an inflammation of the meningeal coverings of the brain and spinal cord. During the succeeding eighty years the disease appeared in epidemic form now in the United States, now in Germany, again in France, then in Sweden, and so on, until the medical men of the civilized world at different times had had an opportunity to study the disease.

These eighty years of study gave us a very complete knowledge of the symptomatology of the disease, and a good knowledge of its pathology. Then came that fruitful decade, 1885 to 1895, during which the new science of bacteriology revealed the cause of many diseases. The cause of meningitis was worked out by the investigations of Weichselbaum, Leichtenstern, Jager, Heubner and others in this eventful period, and in the next decade the relations of the meningococcus to the disease and to its lesions in their finer details were very thoroughly studied. One hundred years of study had contributed much information about the disease, and though treatment had run the gamut from the quart of brandy in eight hours as prescribed by a contemporary of Danielson, Mann and Elisha North in New England to the therapeutic nihilism of a recent date, mortality from this dread disease still ranged between 50 and 80 per cent in whatever way it was treated. Then came the very recent epidemic, wide spread in the civilized world, with 4000 cases in New York City in 1904 and the Spring of 1905, and 3429 deaths, truly a dread disease.

Each outbreak of the disease had led to investigation. Successive investigators had been able to bring new methods to the study, and with them advance the knowledge of the disease. The investigators of this most recent epidemic were in a position to apply to their study a method up to then almost unused in studying meninwitis, and this new method was animal experimentation.

At the Rockefeller Institute in New York, under the supervision of Dr. Flexner, an orderly sequence of investigation was begun. The biological properties of the causative agent, the meningococcus, were studied, and its pathogenicity to guinea pigs (so to speak) was standardized. It was found that in monkeys a disease clinically and pathologically very similar to meningitis in man could be produced, and this was studied. Goats, monkeys and horses were utilized in the attempt to produce a protective and finally a curative serum. Sera so obtained could be and were tested in their power of protecting guinea pigs against fatal doses of the meningococcus, and in their curative action on the experimentally produced disease in monkeys. Step by step advance was made until a serum was ready for testing in the human disease. Animal experimentation had made it very certain that its use in man would do no harm, and had made it very probable that this serum would have a curative action. The test was made in human beings with most encouraging results. Now perhaps more than 1200 cases of epidemic cerebrospinal meningitis have been treated with the serum, and about 80 per cent saved, practically a reversal of the mortality statistics existing before the introduction of the serum. In my own clinic at the Carney Hospital I have used the serum since the earlier days of its use. The number of cases treated has not been large, since this clinic is made up chiefly of adults, but of eight successive cases treated with the serium, we have lost but one case, and that of the fulminating type in a robust young man sent to the hospital with the disease far advanced. This serum has been made possible by animal experimentation. If

those who oppose animal experimentation could have passed with me in the last three years from that spirit of hopelessness when I saw a case of meningitis in my wards to my present feeling of hopefulness now that I have the serum to use, I am sure they would say that the guinea pigs and other animals that gave their lives in these experiments were well used for the benefit of mankind. Only last week there left my wards a bright, brown-eyed boy, the pet of the nurses and physicians, who had come to us stuporous with meningitis, such a case as before the use of serum would in all probability have died, or recovered handicapped with some permanent disability of mind or sense organs. Can there be any question as to the feelings of those parents towards animal experimentation when we tell them that animal experimentation rather than the hospital has been the chief cause of their having their boy at home well again?

Recent studies of nephritis may serve as another example of how animal experimentation as a method helps in clinical investigations. We need not go very far back into the past in tracing the development of our knowledge of nephritis. Prior to 1827 our knowledge of renal disease was in too confused a state for there to be much method in its study. Here as in many other fields, physicians and surgeons were groping about in almost utter darkness. In 1827 Bright brought much light into the study of renal disease by clearly associating the symptoms albuminuria and œdema with lesions in the kidney. His work strikes the key-note of the method followed for many years in the study of nephritis.

About the autopsy table explanatory theories largely had their birth. Morphology dominated the field. At first it was a cruder study of gross morphological changes but soon advances in technical methods of preparing tissues and improvements in optical apparatus refined this method into an elaborated microscopic study, giving us at last a complex pathological classification of renal lesions. Parallel with these post-mortem studies, clinicians were busily refining methods of morphological urinary analysis and classifying their findings. For almost three quarters of a century these clinico morphological studies seemed to center even more about the post-mortem table than around the bed, where concerned rather more with the laboratory than with the ward, and interested more in the dead than in the living. This method has yielded much knowledge of the disease, and great credit is the due of these earlier pathologists and clinicians. Yet all this work has so far failed of explaining the very frequent discrepancies between clinical observations and post-mortem findings. those of us who teach clinical medicine and work in wards realize only too well how impossible it is to apply in our clinical work the elaborate classification of renal lesions that the pathologist gives us. We know the impossibility of foretelling in many cases the anatomical changes in the kidney from the clinical course of the disease. We realize that our knowledge of the function of the diseased kidney on the whole has not been greatly advanced by these studies. An anatomical classification has failed to explain functional differences which are encountered in the disease. This has led to a gradual change in our modes of studying nephritis, so that at the present time the study of nephritis has taken on a more clinico-functional aspect in contrast to the older clinico-morphological one. In recent years the methods of physiology, chemistry and physical chemistry have been applied to the study of nephritis in man. Possibly even more important than this is the utilization of the experimental method where in animals lesions can be produced, can be studied by many methods, and can be interrupted at almost any stage of their development.

From the earliest period of the work on nephritis the relation of hydrops to nephritis has been the subject of much discussion and investigation. In the early days an attempt was made to correlate certain pathological type of renal lesions with the occurrence of œdema, but the study of the structural changes in the human kidney has failed to yield any satisfactory explanation for the occurrence of œdema in some cases and its absence in others when the pathological lesion in the two are practically the same. More recently in man the attempt has been made to study the functional relations of the kidney by means of observations of general blood pressure, physic-chemical studies of the urine and blood and an attempted correlation between these findings and the occurrence of diuresis and hydrops. The relations of salt excretion in cases of nephritis have been studied much by methods involving co-ordinate observation of patients and chemical analyses of food intake and urine output, supplemented by experiments on animals. At first it was assumed that the damaged kidney was unable to excrete salt in normal amount, and this unexcreted salt was retained in the body to disturb osmotic equilibrium so as to cause water to collect in the subcutaneous tissues and body cavities.

A considerable amount of experimental work was found, however, to be rather

against the salt retention theory. Acute toxic experimental nephritis in which there is no hydrops can be produced by various substances, and in these animals sodium chloride retention may take place. With uranium nitrate lesions hydrops is often present without there being any more salt retention than occurs in the other group of animals that did not have hydrops. A critical review of the whole subject of salt retention seems to show that the theory is insufficiently supported and that its supporters have been inclined to emphasize the facts favorable to their argument and not always do they pay attention to the facts against their argument. There is no known fact which undoubtedly proves a causal relation between salt retention and hydrops, and that the water retention is caused by the salt retention is not in accord with the observations on certain cases of interstitial nephritis in which with strong decrease in the power of salt excretion there is a normal, or even increased, water excretion. The ill effects of a diet rich in sodium chloride may be no proof of the salt retention theory, it may merely mean that an excess of that substance works detrimentally in an already existing pathological process.

A considerable amount of experimental evidence goes to show that it is not so much the renal lesion as some peripheral vascular lesson which determines the formation of œdema. That this injurious substance may be contained in the circulating blood of animals with experimental nephritis has been shown by the fact that the injection of blood serum from such animals leads to the formation in certain cases of œdema in animals with previously injured kidney but without œdema, when the blood serum from normal animals produces no such result. Just what this injurious substance is is not known. That it is not the substance injected to produce the renal lesion is shown by the fact that an inteavenous dose of the same dilution as that which would be present in the circulating blood, if all of the injected substance was in solution in the total bulk of blood, does not produce the same effect. It may be some toxic substance that results from metabolism in the animal with the injured kidney, but of this we do not know.

Further evidence of the part played by vascular lesions in the production of œdema is furnished by the work of Pearce. It is known that snake venom produces vascular lesions indicated by hæmorrhage and probably due to injury of the endothelium of small vessels. Pearce showed that if snake venom in very small doses is injected into animals, hæmorrhages do not result, but if the animals also receive a dose of some drug that produces a renal lesion, œdema is likely to appear. On the other hand, after either toxic substance used singly, no œdema appears. These experiments show the association of the two factors, vascular and renal lesion, in the mechanism of œdema production.

Histological study up to the present time has not shown a renal or vascular lesion to anatomically account of the difference between the toxic nephritis with the œdema and that without. Newer methods of histological study may reveal such a change. That this is something more than a guess is shown by some of my own recent work where in rabbit kidneys showing lesions of acute toxic nephritis produced by injections of uranium nitrate (which by the way is the only experimental substance that seems to produce hydrops) I have found a very distinct lesion in the wall of the vascular tuft of the glomerulus which had been completely overlooked by other observers and which seems to be quite characteristic for the lesions of this particular toxin.

That there is a definite difference in the functioning capacity of kidneys whose anatomical lesions differ but slightly has been very beautifully shown by the studies of Schlayer and Hedinger on the function of the injured kidney in animals. They by means of methods of recording general blood pressure, local renal blood pressure, and rate of diuresis after the application of various stimuli have found that there is considerable difference in the functional effect produced by different toxic substances sometimes without there being anatomical differences demonstrable by the methods used.

The results of these various studies of œdema have not as yet produced a solution of the problem. However as a result of physical chemical studies in man and of the study of experimental lesions in animals however, it seems fairly clear that the œdema is indirectly, not directly related to the kidney lesion' and it is strongly suggested that the œdema is the result of the action of some toxic substance in the peripheral vascular system. Looking at it from this poin of view, it is clear that with a given renal lesion hydrops may or may not occur, depending probably upon functional disturbances in the kidney, possibly upon disturbances elsewhere in the body.

Therapeutically we have learned that in a considerable number of cases salt limitation is valuable in managing these patients with œdema, but that in a certain number of them this will fail. This particular problem of the nephritis question has been

more successfully studied by a combination of these various methods than previously from the pathological view point, and so this will serve as an example showing the value of such a combined study. I have not particularly dwelt upon the laborious work involved in these various studies, but those of you who are at all familar with this work appreciate that these results have been obtained by the application of various methods accurately carried out by well trained men working under conditions in which there were well organized laboratories and good co-ordination between them and the clinics.

The study of the mode of formation of urinary casts in nephritis is another good example of the application of the experimental method to the study of renal conditions. Two distinctly opposed theories as to the mechanism of cast formation have existed. One of these assumes that the albuminous material constituting the cast arises from the albumin of the blood, which after excretion through the injured glomerulus becomes changed in physical properties so as to fuse together into a homogeneous, coagulated mass, a cast. The other theory assumes that the albuminous material of the cast is derived from the albuminous material of the epithelium lining the tubules, which becomes fused together and more or less homogeneous so as to make up a cast. This latter theory does not assume that there has been any very great change in the physical composition of the albuminous material between its cell origin and the cast, since desqumated cells and casts in the urine have many identical physical properties.

Among other studies of experimental nephritis undertaken in our medical laboratory at Harvard a study of cast formation has been included. These studies, which were carried out by Dr. R. M. Smith, were completely confined to experiments on rabbits, and a variety of irritants have been used. Roughly these irritants may be divided into two groups, those which produce extensive changes of a degenerative character in the tubular epithelium, uranium nitrate, potassium bichromate and mercuric chloride, and those which while producing evidence of acute nephritis produce comparatively slight changes in the cubular epithelium, conthoridiu and arsenic. By varying the size of the dose of these irritans, by varying the number of doses, by varying the time intervals between the doses, by varying the length of the experiment, which ends either in the spontaneous death of the animal, or in killing the animal, it is possible to very largely control the lesions, and in this way there is a manifest advantage of the experimental work over the study of post-mortem lesions in man, It was found that the irritants which produced marked degenerative changes in the epithelium of the tubules gave rise to a more abundant cast formation than did the other group of irritants. This was followed by means of urinary analysis, the number and character of the casts in the urine being studied from day to day. Of course it is not possible to make an absolute definition of these two groups of irritants, since all of the irritants produced some degenerative changes in the epithelium of the tubules, but the preponderance of epithelial degeneration in one group associated with the greater number of casts in the urine of these same animals serves to indicate very strongly that there is a close association between changes in the epithelium of the tubules and cast formation, whereas since in the other group of animals there is albuminuria associated with relatively speaking slight lesions in the tubular epithelium and comparatively few casts in the urine, there is here further evidence that there is not necessarily a close association between the excretion of albumin and the formation of casts, though the two are apt to accompany each other in varying degree.

By studying the kidneys histologically at varying time intervals after varying dosage of these toxic substances, cast formation could be traced morphologically, and in this way the various transitions between degenerated cell, granular cast and hyaline cast be followed. From a morphological point of view, surpported by the results of urinary analysis, it would seem that both granular and hyaline casts in these animals arise from degenerative processes in the opithelium, and that the granular casts come early, the hyaline casts later; that there is a progressive transformation between granular and hyaline casts, and firanular casts appear to be formed quickly and excreted early, while hyaline casts are formed slowly and excreted late.

This experimental method of studying renal lesions has also been applied to the problems of chronic nephritis, but so far results have not been quite so satisfactory as with acute changes. Various substances have been tried by different observers. I have been able in our laboratory to produce with considerable success lesions in rabbits very similar to the lesions of chronic interstitial nephritis in man by the use of repeated doses of uranium nitrate. By this means we have been able to produce diffuse changef in the kidney, with alternating areas of connective tissue increase about atrophied glomeruli and tubuls and

between these, areas showing nilated, large convoluted tubules, apparently in a state of compensatory hypertrophy. Quite striking in many of these animals was the dilatation of the capsular space with atrophy of the glomerular tuft, and so the beginning formation of a small cyst originating from the glomerus, which as you know, is a common finding in chronic interstitial nephritis, but an occurance which has been differently interpreted by investigators of late. The more recent tendency has been to consider this cyst formation in chronic interstitial nephritis as primarly dependent upon congenital defects or developmental abnormalities in the kidney. These authors consider that the inflammatory processes are associated, not causative. Our work on the other hand in these rabbits would rather go to support the older view that there is a close association between chronic interstitial changes and the cystic kidney, probably a closer association than is believed in by many of the recent workers, since these cysts are very infrequent except in association with definite chronic interstitial changes in so far as the rabbit is concerned. These chronic rabbit lesions we have produced sometimes by giving a small number of rather large doses of uranium nitrate, so that the rabbit was made exceedingly ill and just recovered. In other animals the changes came by repeating small doses of the same poison at two week intervals over a considerable period of time. These two methods of production would suggest the possibility that chronic interstitial nephritis in man may be produced in two ways. First, the changes result from the repeated action of slight irritants, the theory which is usually held; second, it may be true that a single severe irritant apparently entirely recovered from may eventually end in chronic interstitial nephritis. This latter explanation is entirely analogous to the explanation which has recently been given for the development of certain chronic interstitial changes in the liver.

During the currant year I and several of my assistants at Harvard have been studying the relation of chronic nephritis to cardiac hypertrophy by means of animal experimentation. This work is very far from completion, but may serve as an example of method. Clinically we are very familiar with the hypertrophied heart associated with chronic nephritis. We know that in some of these individuals the blood pressure is very high, in others moderately elevated; arteriosclerosis may or may not be a prominent feature. Often all evidence of myocardial lesion is absent. Again all of us have observed cases of chronic nephritis without cardiac hypertrophy. By bed-side and post-mortem observation we have not succeeded in disentangling from this inconstant complexity of abnormalities the cause and the mechanism of the cardiac hypertrophy associated with nephritis. In most cases in man more than one probable cause is effective, and the exact influence of the renal lesion can not be deciphered. In animals a single cause may be used and then causes in combination, so that from animals it may be possible to work out the mechanism of cardiac hypertrophy and renal disease. This we are attempting to do. We have found that when with uranium nitrate we succeed in producing a chronic nephritis in rabbits, we find a varying degree of cardiac hypertrophy. We know that sparteine sulphate and adrenalin chloride in combination produce cardiac hypertrophy. Loeb has shown that this is accompanied by or caused by an interstitial myocarditis. We have found further that these drugs not infrequently cause a slightly hæmorrhagic pericardial exudation, and this repeatedly occurring leads to a chronic inflammation of the viscerai layer of the pericardium. Adrenalin chloride alone produces arterial changes mainly in the arch of the aorta, and in some rabbits this is accompanied by cardiac hypertrophy. Study of the heart from these various animals shows certain differences in lesion. Other experiments combine these methods, and study of these hearts should yield combinations of lesions. Perhaps study of all these groups in conjunction with study of the changes in cases of chronic nephritis in man may eventually lead to a better understanding of the mechanism of the production of cardiac hypertrophy and renal disease. When we know the mechanism of production, we can more rationally adopt proceedures directed to prevention of those cardiac disturbances which often vastly increase the discomfort and disability of the man so unfortunate as to have chronic nephritis. Though from these studies of ours, not much may have been added to our knowledge yet they show how the experimental method widens our field of investigation in clinical problems. The utilization of animal experimentation in the study of many other clinical problems must in a similar way extend the range of our investigations, and from such extensions little by little must come the final solution of our problems.

It may seem that the experimental study of nephritis has yielded as yet very little knowledge. Surely it has not settled the pryblem in any way comparable to the solution of the problem of epidemic cere-

broepinal meningitis. However, I have used nephritis as an example to show how the experimental method is to play a part in clinical investigations of chronic disease and have chosen that particular example because in connection with my clinical work I and my assistants at Harvard have been engaged for several years in studies of experimental nephritis.

One more example and then I have figished. This year has seen the experimental production of anterior poliomyelitis in monkeys and the experimental disease yields many opportunities of study not posssble in the natural disease. Already much that is new has been learned about the disease, because by the experimental method we can control many factors which in the natural disease are absolutely beyond control. Only on last Saturday, February 12th, there was published a report from the workers at the Rockefeller Institute which makes it very probable that the infection in poliomyelstis is spread by the nasal secretions, which, if substantiated for man, may be the means of controlling such epidemic spread of the disease as occurred last summer in Boston, New York, Minneapolis and St. Paul. With the ability to propagate the disease in monkeys, we are in a position to study the prevention and the cure of disease. We even have the means of testing out on serviving monkeys the efficacy of various methods of orthopedic treatment such as tendon and nerve transplantations. Infinitely broader become the scope of investigation of poliomyelitis because as the result of animal experimentation we can study the disease under the ideal conditions of laboratory control and judging the future by the past, beneficient results for human beings are surely to be expected from such study.

Even if the concrete advances already made in medicine from animal experimentation could be effaced, leaving us only the method ready for future utilization, animal experimentation would be justified. If on the other hand to the many results already achieved by animal experimentation we add its potential value as a method of medical investigation, it becomes of almost inestimable value to the human race, and this is what I would have the people of this fair Southland learn from their physicians.

252 Marlborough St.. Boston.

The Duty of the Physician to the Public.*

By C. F. Williams, M. D., Columbia, S. C., Secretary South Carolina State Board of Health and State Health Officer.

Obviously enough it must seem that the duty of the physician to the public is not restricted to the field of medicine, particularly to the field of preventive medicine, but in my brief discussion of the subject I shall confine my remarks entirely to the latter field.

Never in the history of our country has there been so much activity in the field of public health and preventive medicine as at the present time. Not only is this true of our country but throughout the civilized world. Everywhere we hear the clarion cry, conserve the public health. Why is this? In a general way the answer involves two reasons. First, from the advance made by medical science in the past quarter of a century which gives us a knowledge of the cause and mode of transmission of certain diseases; a knowledge which carries with it, as Hill has said, "a true conception of the study of public hygiene as the study not of fancies or fads but of determinable facts, from which tentative generalization may be made, checked, revised, polished, reviewed and finally established as principles for application in new instances"; wholly differing from the older conception, though recent enough to be recalled by every one present, "which held that ill health, and especially the infections that are due to and spread by certain vague factors," as "peculiar weather," "aerial convections," "sewer gas," "excavation of the soil," and even "general unsanitary conditions."

Second, because we are beginning to realize the great economic waste from preventable diseases, the needless misery, suffering and unhappiness thereby engendered; the deterioration of the race through their influence and its far reaching effects upon us as a State and nation.

As has been pointed out by Prof. Norton of Yale University, "there are four great wastes today, the more lamentable, because they are unnecessary. They are preventable death, preventable sickness, preventable conditions of low physical and mental efficiency, and preventable ignorance. They fall like the shades of night over the whole human race, blotting out its fairest years of happiness. The facts are cold and bare—1,500,000 persons must die in the United States during the next twelve months, equivalent to 4,200,000 will be constantly sick; over 5,000,000 homes consisting of 25,000,000 persons will be made more or less wretched by mortality and morbidity." The figures are alarming and should arouse each of us to our responsibilities and awaken in us a keen desire to do our full duty to the public in preventing diseases which can be prevented, in relieving the burden of misery, suffering and unhappiness, in checking this

*Read before the Tri-State Medical Association held in Richmond, Va., February, 1910.

great waste and in preventing deterioration in our race.

Frequently we hear the question asked, what is the physician's duty to the public? To answer this question fairly, there can be only one answer; namely, the same as that of any other good citizen. The duty of the physician is simply that of a citizen, one who has had exceptional opportunity for studying and understanding health problems, and who on account of this special knowledge is qualified to render special service to the community. But as a citizen we must fairly see that he has no greater duty than any other trained, capable man, who ought to render the community service along the lines of his special training and ability. A good workman or a good business man, or a good lawyer outside of his professional life, may reasonably be expected to give to the community as a whole something from his special training and ability. Hence, the physician, who should know more about health matters than any one else in the community, should be expected as a good citizen to help the community conserve its health.

It cannot be denied that the physician's professional knowledge and responsibilities to his patients carries with it responsibility to the community as well. As Dr. Richard C. Cabot has well said "it would seem at the present time that the majority of men are governed by the respectable old individualistic idea that their whole duty in the practice of medicine is to the patient, and that his interests are always to be paramount." "Those who fixed in our code of ethics this eighteenth-century individualism thought they were doing a very noble thing to make it clear that the doctor was not to serve his own interests, but rather those of the patient when any conflict arose. It did not occur to them that there was a third party in the transaction—namely; the general public and its interests. But now under the new order of things with the awakened activity of the general public in the field of public health and preventive medicine, "there seems to have come upon the medical profession a dawning sense that they are the servants not of their patients primarily, but of the community first, last, and all the time, and of their patients only in so far as their interests are identical with those of the community." It is for the patient's interest to keep it dark whenever we find an inconvenient case of infectious disease, but obviously enough it is for the public interest that we shall do nothing of the kind. Gradually physicians are beginning to realize this, and to educate their patients up to the point of reporting the cases, which are likely to leak out anyway; cases such as diphtheria, scarlet fever and small-pox. When the matter can be decently hushed up, it is still the practice of a great many physicians to be blind to their public duties, and to serve private masters, their patients. Still, more strongly is this the case when we come to these most dangerous and contagious of all common diseases, gonorrhea and syphilis." With the very mention of these diseases the physician's lips are sealed, and still, gentlemen, in our battle to prevent deterioration of the human race to preserve our national vigor and to check a great economic waste, these diseases are to be reckoned as our greatest foe. Nowhere in the field of preventive medicine has the physician so distinct and plain a duty. The very nature of this class of diseases, their shameful character, and the knowledge of their source, is unto itself a fortress behind the walls of which only the physician in his capacity as medical adviser is allowed to pass. It is therefore evident that in the beginning of any propaganda looking to the suppression and prevention of these diseases a great duty and responsibility devolves upon the physician in his capacity as sanitarian and guardian of the public health. In safeguarding the public from the spread of these diseases the physician becomes the protector of the wife and mother and the preserver of future citizens to the State. To discharge this duty faithfully realizes the highest ideal in preventive medicine and renders a great service to the State and nation.

There can be no question whatever that a surprising and discouraging number of the medical profession have not realized their duty to the public in the matter of preventing disease, even from the standpoint of a good citizen; and that those who have a true conception of their duty and responsibility are frightfully lax in giving directions which should be followed by patients having preventable diseases, and by the families of such patients. Not alone is he lax in giving the first information, but there is a greater laxity in failing to persistently, continuously and tactfully follow up his instructions to insure sympathetic and intelligent effort on the part of the patient and family.

How frequently we as health officers find, when called upon to investigate epidemics, that the outbreak is due either to the physician not giving proper instructions on the appearance of the disease, or to his not being more insistent that his instructions be complied with by the patient and family. This is failure to render a professional duty to the patient and a vital social duty to the community. It can be fairly charged that

an altogether inexcusable proportion of the medical fraternity is frequently, if not usually, lax in this respect.

From the standpoint of a physician's responsibility as a citizen, it may be also urged that he might discharge that responsibility to a greater degree by being more alert in taking advantage of opportunities for popular education. It seems to me that the physician, as a citizen, ought to cultivate the habit of presenting scientific trusts practically applied in a form to be understood by the average man. It would seem also that the physician should be more prompt and more thorough in combatting the popular ignorance which is betrayed on every hand as to the cause and mode of transmission of disease; and especially should he do this at times of crises; for example, in connection with the proposal to establish a tuberculosis sanitorium. During the last year there has been a number of instances when a sanitorium or dispensary has been bitterly opposed. In nearly every case the greater proportion of the medical profession, including the most influential members of it, have remained persistently silent, even when there was every reason for a frank, open statement of opinion or interpretation of scientific authorities upon the subject.

I am not one of those who believe that the physician is called upon to spend his life in promoting preventive medicine. Certainly this is not to be demanded fairly until we revise the basis of professional remuneration. Some of these days we may betray the existence of good sense equal to that of the Chinese, who are said to pay their physicians for preventing diseases rather than for curing them. We may believe that the time will come when physicians, to be leaders, will encourage regular and frequent examinations of the entire family. This will mean life insurance examinations, real, practical life insurance, and the physician will have his part in conducting such examinations and in acting in an advisory capacity in order to direct those of his clientele in the best direction suggested by the result of his examination.

But until this day comes let us be true to our citizenship, professionally law-abiding, and above all, scrupulously faithful in remembering the larger interests of the public against the ignorance of the patient and the family. In other words, the physician should be absolutely faithful in the reporting of all reportable diseases, in giving proper instructions to his patient and the members of his family, and in faithfully seeking to secure observance of his instructions.

Some Difficulties and Dangers in Surgical Operations of the Biliary Tract.*

By Joseph Graham, M. D., Durham, N. C.

The first difficulty is the diagnosis. Diseases of the bile passages furnish classical examples of delayed diagnosis.

The symptomatology of gall stone disease as given in our text books, with few exceptions, is but a description of complications, and of symptoms produced by them. The late and terminal complications rather than the early and initial manifestations have received consideration.

The pathology of gall bladder disease has been based on the findings of postmortem examinations and deals entirely with the complications and late manifestations, therefore, the medical profession has been slow to gather correct ideas concerning the symptomatology and pathology of bile tract infections.

The idea is certainly prevalent in the profession that to warrant a diagnosis of cholecystitis, some jaundice must be present. The failure to detect jaundice seems to many to unsettle their tentative diagnosis of cholecystitis. Jaundice has held and still holds an unwarranted importance as a symptom of gall stone disease. With the general acceptance of the fact that jaundice almost without exception is a late symptom, marking the occurrence of a terminal event, will disappear the greatest obstacle in the way of early diagnosis of gall stone disease.

A consideration of the anatomical fact should give the correct explanation concerning jaundice. Jaundice cannot develop unless the common duct is occluded. Cholecystitis, stones in the gall bladder, even blockage of the cystic duct cannot produce jaundice so long as the common duct is patent. If there is an associated cholangritis involving the common or hepatic duct, jaundice will develop—jaundice so produced is a late symptom—a sign of the development of a complication. Mayo says "Jaundice has no part in the diagnosis of gall bladder stone and when present means a complication," All surgeons state that jaundice is absent in the majority of their cases of cholecystitis and cholelithiasis.

The radiation of pain from the right hypochondrium to the back and right shoulder has been called the "characteristic pain" and is a standard symptom of gall stone disease. It is frequently absent, the pain may be variously distributed over the liver and abdomen. This varied distribution of pain is easily understood. With widespread adhesions involving the omentum, liver, gall bladder, stomach, duodenum and

*Read before Tri-Statel Medical Association held in Richmond, Va. 1910.

hepatic colon it is easy to believe that pain can be referred in any direction and that there is no especial reason for the "characteristic pain."

Operation reveals in many instances that owing to adhesions and ulcerations the source of pain is not in the biliary apparatus at all, but in the pyloric and subhepatic region.

The frequency with which gall stones are overlooked draws our attention to the fact that it will be necessary for us to change the basis of our diagnosis because the old plan must continue to result in wrong conclusions. In studying the histories of a series of gall stone cases it will be found that the early manifestations of the presence of gall stones will practically never be referred by the patient to the region of the liver and bile passages. The patients refer their trouble to the stomach and not to the liver.

The earliest symptom to appear and the last to disappear is "indigestion." The patient has a long standing "indigestion," a capricious appetite, constipation, flatulence largely independent of eating, together with discomfort of an empty stomach. These signs come in the form of "attacks of indigestion" or "bilious attacks." One of the most frequent early symptoms is a sense of constriction in the epigastric region. These cases are treated as neurosis, gastralgia, neuralgia gastritis. The dyspeptic symptom becomes more and more annoying and the next diagnosis is "dyspepsia" and, as Deaver says, this would be well if we could add "gall stone dyspepsia." We should diagnose "gall stone dyspepsia" more often than we do and by early intervention save the patient years of discomfort and suffering.

The most reliable sign of disease of the gall bladder is described by Murphy. Murphy writes, "The most characteristic and constant sign of gall bladder hypersensitiveness is the inability of the patient to take a deep inspiration when the physician's fingers are hooked under the right costal arch, below the hepatic margin. The diaphram forces the liver down until the sensitive gall bladder reaches the examining finger and suddenly the inspiration ceases as if it had been shut off." I have never found this sign absent in a case of calculus or infection of the gall bladder or bile ducts.

Undoubtedly in many cases the diagnosis is rendered more difficult by the administration of morphine. Morphine is the ready refuge of the physician for acute abdominal pain. It is not the one dose that does harm, but the useless, harmful repetition. There is no justification for repetition unless the diagnosis is clear and the physician is fully aware of the condition he is treating.

Time for Operation.

It is usually unwise to operate during the development of an acute attack of inflammation of the biliary tract. These cases fare better if tided through the acute exacerbation unless there is a localized collection of pus. For the acute exacerbation, Oschner directs rest, absolute rest of the body in general and the alimentary tract in particular—avoidance of food and cathartics, lavage and rectal feeding. Lavage is of particular value in relieving pain and often takes the place of morphine.

It has been held by many authorities that it is not wise to resort to radical measures for the removal of gall stones so long as they do not give rise to any grave disturbances. This would be a proper and reasonable view to take were the danger to the patient the same before and after development of these complications. This, however, is not the case. Experience has shown that there is practically no mortality in cases operated before the development of complications, while the deaths following operations in the complicated cases might have been avoided had the operation been performed before these complications arose. "It was the mortality and complication of delay that placed the early operation for appendicitis on a sound surgical footing—to remove the disease while still in the appendix was the logical conclusion." The same reasons apply and with equal force to the early operations for gall stones—remove the disease while still in the gall bladder and avoid morbidity and mortality.

Early operation is an attractive proposition—it offers certain definite advantages—increased safety for patient, avoidance of complications, avoidance of serious illness and ease of performance. Delay produces the complications—complications produce the difficulties, danger and mortality.

Choice of Operation.

The choice of operation will be determined in part by the local conditions found when the abdomen is opened, but more often by the general condition of the patient and the skill and experience of the operator. We must look upon the proquosis from the patient's point of view. In many operations, especially in old people suffering from a severe infection, the operation which gives the speediest relief will be the most desirable. It is not the permanent cure of the disease that at such a moment is the surgeon's chief desire, but some quick, safe means of giving relief to urgent, threatening symptoms so that the patient may be safely carried through a time of great peril, and later a more complete procedure for

permanent relief can be undertaken.

Difficulties and Dangers of the Operation.

The chief dangers are dissecting errors, wounding of important structures and post operative hemorrhage. Jaundice is the most frequent cause of post operative hemorrhages. This is what makes the common duct operations more dangerous than cholecystotomy and even cholecystectomy. Every bleeding point must be secured and carefully ligated. This is the best safeguard against hemorrhages.

The chief difficulties of operations are adhesions and the certain removal of all stones. In dealing with adhesions nothing is of as much value as experience—considerable time and skill is frequently required to clear away the fog so we can see the disease.

Sepsis and peritonitis are best guarded by careful protection of the exposed surfaces, aspiration of infected bile and the proper arrangement of abundant drainage. The greatest difficulty is to be certain that all stones have been removed. While stones may be felt by one or two fingers, such palpatation is always uncertain. Even with the whole hand introduced into the abdominal cavity, it is easy to overlook a stone. It is almost impossible to feel stones in a tense, distended gall bladder. In palpating the cystic and common ducts for stones, much confusion is caused by the presence of enlarged lympbatic glands along the course of the ducts. Stones are more frequently overlooked in the hepatic and common ducts than in other locations. The best safe guards against overlooking stone are, incision of sufficient length to admit the whole hand in the abdomen, rotation of here careful, repeated systematic palpation, instrumental examination, and if the history locates the stone in the duct, incision of the duct and digital exploration with the uncovered index finger. If the duct is occluded by stone, it will be sufficiently dilated to admit the finger: Stones frequently will be detected by the internal digital exploration of the ducts when external palpation and instrumental examination have failed.

The importance of the overlookod stone cannot be exaggerated. The overlooked stones produce removal of symptoms and suffering, and the patient has to undergo a second operation and again be exposed to the dangers of anaesthesia, shock, hemorrhage and sepsis.

The Significance of Leucorrhoea.*

By Augustin H. Goelet, M. D., Professor of Diseases of Women, New York School of Clinical Medicine, Gynecologist to the West Side German Dispensary and Hospital, etc.

There is little herein detailed that is not already known though it may be often disregarded, many times perhaps because the average practitioner is not properly equipped for dealing with such cases. Yet there is no more serious error than to dismiss a patient having a vaginal discharge, without carefully investigating its true character, and prescribing only a wash or injection to be used unintelligently and indifferently, because the patient is not made to appreciate its true significance. If failure to afford relief was the only penality, such error might be pardoned, but often failure to recognize and promptly combat the condition that gives rise to a vaginal discharge leads to serious consequences, involving the life or future health and happiness of the patient.

It is an indisputable fact that the lives of many women have been joepardized or their health and happiness completely wrecked because of neglect, in the early stage, of some female disease which would have been evident to an acute observer and the progress of which could have been arrested in this stage. In justice to the physician it must be said that the patient or her mother is often to blame for not calling attention to a discharge that unfortunately is too often regarded only in the light of an inconvenience. On the other hand she has not been taught to appreciate the full significance of a vaginal discharge, and has not had pointed out to her the possibilities that may arise from neglecting it. Hence it is clearly the duty of the physician to educate his patients to a proper appreciation of this one symptom (leucorrhoea) in particular. True some leucorrhoeas are innocous, but it is the physician's privilege to decide this, and he should equip himself to make his decision reliable.

Let us see what may be the significance of a vaginal discharge at different stages of woman's life; viz. *In Childhood before Puberty; in Young Women before Margiage; in Married Women; and in Women past the Menopause.*

In Childhood before Purberty.—At this veriod a discharge may denote an infective pulvo-vaginitis that may originate in many ways unsuspected by the mother. I recall a case that came under my observation where the infection had been contracted

*Read at the 12th session of the Tri-State Medical Association of the Carolinas and Virginia held at Richmond, Feb. 15th to 17th 1910.

from another child whose nurse carelessly dried the genitals, after bathing, with a towel that had been used by one of her older brothers who had used it and thrown it down carelessly among the other soiled clothes. Examination of the discharge in this case revealed the presence of gonococci in abundance. Unfortunately its character had not been ascertained sufficiently early to prevent extension of the disease to the uterus.

I have observed septic endometritis with involvment of the adnexa in young women, virgins, where there was a history of purulent discharge from the genitals during childhood that had not been given proper attention at that time and where no other cause could be assigned for the condition.

A less virulent form of infection may arise from contact of unclean hands with the genitals; either those of the child herself or those of her playmates; for children will indulge in play of this kind, sometimes innocently and sometimes by example of their nurses. I am inclined to believe from observation that some precocious children derive pleasurable sensation from such practice which may have had its origin in the use of strong, irritating soap. Mothers should be instructed that soap is not always essential to secure cleanliness of the genitals of children, and that irritating soaps should be avoided.

In this connection I recall a very interesting case; a beautiful child of five was brought to me by the mother who observed a discharge from the vulva that proved to be a simple vulvo-vaginitis. It was subdued but there was prompt recurrence upon suspending treatment. The mother was directed to watch the child, particularly after she was put to bed at night and it was soon discovered that when pretending to be asleep she would rub the gentials. Close observation gave evidence of intentional titillation. The practice was corrected and prompt cure of the condition resulted. The origin of the practice in this case could not be traced, but the discharge was kept up by the excitment of the genitals.

Vaginal discharge in children may arise from the presence of foreign bodies, as bits of coal. In one case the vagina was found filled with bits of coal which the child declared had been introduced by a playmate. In another case several shoe buttons were found, and in another a hair pin.

A vulvo-vaginitis may arise, as every physician knows, from the irritation produced by the presence of worms in the rectum or from their entrance into the vagina. A vulvitis may also result from uncleanliness due to decomposed smegma, sweat or urine, particularly in warm weather, and from hyperacidity. It must be remembered also that children of strumous diathesis and those who are poorly nourished and who live in unhealthy surroundings are prone to have discharges from mucous surfaces that are sometimes communicable.

But, by far, the most frequent cause of vulvo vaginitis in children is gonorrhoel infection, not necessarily the result of violation but most often from unclean habits.

This furnishes a strong plea for careful microscopic examination of the discharge from the genitals of all female children, whether it appears to be suspicious or not.

In Young Women Before Marriage.— These are the cases most often neglected, owing to false modesty on the part of both the mother and the daughter, shared only too often by the family physician. Too often it has occured that the unsuspecting mother and physician have permitted the neglect of a vulvo-vaginitis of gonorrhoeal origin because a proper examination was not insisted on, depending upon external irrigation or imperfet vaginal irrigation by the patient to cure the discharge, the character of which was unknown, even to the physician.

The physician, like the detective, some of whose methods he might well imitate, should never think any female patient with a vaginal discharge above suspicion; though he need not express this opinion or show it in any way by his conduct. When his suspicion has been confirmed he need not even then feel obliged to reveal it, if he can without doing so, convey a proper appreciation of the necessity for the vigorous measures required to combat the disease successfully.

When consent to examination is not assented to, the stains on the linen may, with the connivance of the mother, be obtained for examination and if that reveals the necessity for local examination and treatment it can be put so strongly to the patient that she will fear further refusal.

The writer was once so unfortunate as to get an infection of the finger by making a digital examination of a supposed virgin who came to him for relief of dysmenorrhoea. Subsequent inspection revealed an active specific vulvitis and vaginitis, the discharge under the microscope showing gonococci and streptococci in abundance. This patient did not complain of any discharge, in fact denied its existence. I am satisfied she was ignorant of the nature of the disease, but this lesson teaches that we cannot be too particular in our investigations and in the examination of young women who come or are brought to us for

treatment; for our own sake, as well as theirs.

The discharge in young women is sometimes found to be a continuation of a vulvovaginitis from childhood that has been neglected. A young society lady was brought to me by her married sister who stated she had a discharge from early childhood and that she had received treatment from the family physician from time to time. He had made an examination and had prescribed washes at different times, but as no permanent benefit resulted it was concluded that the discharge was chronic and for a long time it had been neglected. Since puberty nothing had been done for it but finally it had become unbearable. Unfortunately the uterus and adnexa were involved when she was brought to me.

A specific vaginal discharge may arise from other sources than direct infection from the male, as for instance from unclean towels that have been used by other members of the family or female companions, unclean bed linen and infected clothing, under garments and bathing suits.

The nozzle of the syringe is a frequent source of infection, for no pains is ever taken to keep it clean and the necessity for having it perfectly clean before using it is rarely thought of. Contact of unclean toilet seats in public places is by no means so infrequent a source of infection as is supposed, and the physician should caution his patients not to sit down in such places. The custom of the French who stand or stoops over an opening in the floor might well be immitated in this country.

Though infection is frequently the cause of vaginal discharge in young women, even those in the higher walks of life, it must not be inferred that leucorrhoea may not originate from other sources, and may be of minor significance, yet have an important bearing on the future well being of the patient. For instance masturbation is a frequent cause of leucorrhoea, as well as sexual excitment from intimate association of the sexes, even when it does not overstep the customary limitations of polite society. It may result also from a catarrhal endometritis, or uterine displacements or from conditions that cause dysmenorrhoea; constipation or any other condition that produces pelvic congestion, pelvic tumors, etc. Leucorrhoea is also observed in anemic subjects and may occur also as the result of hyperacidity.

Whatever its source the physician should always inform himself of its character and endeavor to correct it. But from what has been said it can plainly be seen that leucorrooea is too often viewed with indifference, and the source of possible infection is too often disregarded.

In Married Women.—Unfortunately women are too often led to believe that leucorrhoea is usual after marriage, that it has no special significance and therefore is to be disregarded or regarded only in the light of a necessary inconvenience. Though it may sometimes have no special significance as a rule it should always be considered abnormal when it is constant or when it recurs repeatedly and should then receive the prompt attention of the physician. It may constitute only an increase of the normal secretion, yet may be evidence of an abnormal condition that should be corrected; and, on the other hand, it may be the result of some suppurative process due to infection of a serious character. It is therefore clearly the duty of the physician to make a careful investigation in every case when a vaginal discharge is discovered or is complained of by the patient, and to ascertain its character and source. It is not sufficient to know that the discharge contains pus and bacteria, but the kind of bacteria is important, and it is also important to determine whether it proceeds from the urethra, or the cervix alone or from the cavity of the uterus. The physician who pratices gynecology without employing the microscope and other known means of facilitating diagnosis in these cases is doing blind work which is oftentimes worse than useless, and he is equally as culpable as he who is satisfied to prescribe a vaginal wash for leucorrhoea.

Vaginal discharge in recently married women always demands prompt attention, for unfortunately it is too often the custom for young men to marry while they still have a gleet or when they have not been pronounced cured of a gonorrhoea. It must be borne in mind that absence of discharge is not evidence of cure, for this disease often lurks in the prostate long after all visible evidence of discharge has disappeared. I once did an abdominal section on the wife of a physician whose pelvic organs presented unmistakable evidence of gonorrhoeal invasion. After seeing the condition the doctor asked to have his prostate examined, stating that he had contracted the disease sixteen years before marriage and believed himself cured. Examination of his prostatic secretion revealed gonococci.

It is the duty of the physician to educate his patients to a proper appreciation of the danger to the young wife who marrie as man that has previously had gonorrhoea. I feel so strongly upon this point that I think an enforced examination and a clean bill of health from a competent specialist

should be demanded before a man is permitted to marry.

If fathers and mothers of young women could be made to appreciate its importance it would not be long before such a demand would become a custom; then the work of the gynecologist would be greately curtailed.

It is equally important that the man who contracts gonorrhoea after marriage should not co-habit until he is pronounced cured. Unfortunately every man is not properly informed upon this subject and he has but a vague conception of its importance.

It is quite true that this disease may be contracted by the wife from other sources than her husband. I once discovered it in a young wife whose chasity could not be questioned and the husband denied ever having had it. I was interested to ascertain its origin and was persistent in my investigation to that end. Eventually it was learned that their maid had the disease and had used the fountain syringe of her mistress that had been left carelessly hanging in the bath room.

It is most unfortunate that the belief is so universal, not only with the public, but also with many physicians, that gonorrhoeal infection in women must first manifiest itself always by a burning upon urination and a profuse purulent discharge; in fact that there must always be a primary urethritis and vaginitis. Some authorities contend that the urethra is the most frequent location of the primary infection in women. My experience convinces me that the cervix is the most frequent seat of infection and that it often occurs without primary urethral infection. The vulva may be the seat of primary infection also, but primary gonorrhoeal vaginitis is rare.

Gonorrhoeal infection of the cervix is very much more frequent than is generally realized, even by the physician, and frequently is unsuspected because there is not always a profuse or suspicious discharge. And these are the most dangerous cases because they are not suspected. The infection is lurking in the glands of the cervix and is not manifest even in the discharge in some cases except under some unusual excitment or irritation that causes the glands to throw off their secretion in unusual quantity. But it is always possible to make a correct diagnosis in such cases by examination of the secretion after intentionally provoked irritation.

There are ofther forms of infection encountered in women that are only a little less harmful; viz. the streptococcus and staphylococcus either alone or together. Both may be transmitted to the male and produce an inflammation quite as intractable sometimes as that caused by the gonococcus. It is this form of infection lurking in the generative tract of women that gives rise to inflammatory conditions following the introduction of instruments into the uterus, and that sometimes follows abortion and labor. Hence the importance of detecting the presence of bacteria in the leucorrhoeal discharge. These micro-organisms make their way along the course of the lympathatics of the broad ligaments by absorption from the uterus, producing, under conditions favorable for their development, cellulitis and peritonitis and sometimes abscess in the pelvis.

The woman who harbors these bacteria in her genital tract is living over a veritable volcano that is ready to burst forth at any time under favorable conditions, supplied by some slight traumatism or act of imprudence, like exposure to cold. Fortunately these micro-organisms manifest their presence by the so called leucorrhoea, because they provoke irratation that causes increase of secretion which is a warning; but if this worning is disregarded the result must be anticipated.

The manner of their introduction into the vagina is not easily determined but probably the most frequent means of transmission is by the nozzle of the syringe which is never clean. It is kicked around the floor and it would seem that every effort is made to insure its infection. Even the inside of the fountain syringe is a fruitful source of infection for the rectal nozzle, after it has been used, is invariably insertec into the mouth of the bag, as is also the vaginal nozzle. A woman who was well enough informed to be suspicious of any unusual leucorrhoeal discharge once consulted me for a very profuse purulent discharge which she thought might have been contracted from the man with whom she was living. It proved to be a mixed infection of the streptococcus and staphylococcus that had invaded the uterus. Her suspicions were allayed and I endeavored to trace the source of infection. She admitted being careless with the nozzle of her syringe, but had no servant. She had however two pet dogs that often played with the nozzle of the syringe as it hung in the bath room.

The colon bacillus and the tubercle bacillus, as well as the various saprophytes are also found in the vaginal discharge sometimes and their source and significance should be ascertained when possible. There may be a recto-vaginal or recto-uterine fistula or the discharge may come from an anal fistula may find its way, first to the vulva then into the vagina. A patient once came to me complaining of what she

designated a profuse offensive leucorrhoea, the source of which proved to be an annal fistula, and the vagina was fortunately not involved. The source of a vaginal discharge may be cancer of the endometrium or of the cervix or of the body of the uterus, and the discharge would also be designated leucorrhoea by the patient.

A married lady who consulted me for hemorrhage from the uterus that proved to proceed from cancer of the cervix admitted that she had been having a rather offensive leucorrhoea for several months or a year before bleeding occurred, but she paid no attention to it because she was afraid if she consulted a physician he would find something that required treatment.

Anything that causes congestion of the pelvic organs may produce a leucorrhoea; for instance constipation, an inactive and congested liver, intestinal indigestion, tight lacing, prolapse of the kidney, by interferring with the return circulation through the ovarian vein, unusual sexual excitement, particularly when it is not relieved, sexual excesses, efforts to prevent conception, etc. Such a state of congestion if not corrected leads to catarrhal inflammation and makes the genital tract receptive of infection that would be resisted if a normastate prevailed. In other words a congestl ed mucous membrane is a fertile field for the development of pathogenic bacteria.

It is well known that a woman is more readily infected after an abortion of labor, because the tissues are less resistive than before. For instance a woman married to a man with chronic prostatitis may resist infection before the first pregrancy but will become promptly infected after.

A frequent cause of leucorrhoea is the use of irritating substances in the vaginal douche. This is particularly noticeable when the vaginal mucous membrane is sensitive, as it is in some women. I have known the use of bichloirde solution and soap also to produce an annoying leucorrhoea that promptly subsided upon discontinuing the douches. Hence prolonged and too vigorous efforts to cure may cause continuance of a leucorrhoeal discharge.

It is very unfortunate that the term leucorrhoea is used so indiscrimnately to designate any and all forms of discharge from the female genitalia. It is so frequently given as a symptom by the patient who consults the physician that it has come to be regarded as natural and its actual character is seldom noted. All women, especially married women, have a perceptible secretion at times, or rather a moisture, about the vulva orifice. This is not significant and requires no attention. But if an apparently normal secretion is persistent or sufficiently profuse to produce inconvenience it would be safer for the woman to consult a physician, let him decide if it requires attention.

In Women Past the Menopause.—At no period of a woman's life is investigation of a vaginal discharge more important than after the menopause. The popular belief that women past the menopause are or should be exempt from disease of the generative apparatus is very unfortunate because it often leads to neglect of conditions that are serious. It is strange but women at this stage of life will frequently deny the existence of a discharge that is actually causing annoyance, especially women who have never been married or have never had children. Conditions that may cause a vaginal discharge are by no means limited to women who have had children, but are also encountered in unmarried women past the menopause. This is particularly true of senile endometritis which is found not infrequently in unmarried women after the change of life.

Leucorrhoea at this period may be evidence of cancer of the uterus or a senile endometritis and vaginitis or it may be caused also by fistula fibroid tumors and other tumors of the pelvis and the same inflammatians that occur at an earlier age. Infection of the genital tract at this period is rare but it does occur undoubtly. I have seen cases in my clinic but never in private patients. Diabetes gives rise to a most annoying discharge and a vulvitis at this period, and sometimes constipation and hyperacidity will also produce leucorrhoea. Uterine displacements at this period are generally found associated with senile endometritis but do not act as an independent cause of the discharge.

But by far the most frequent causes of discharge in women at this period are senile endometritis and cancer of the uterus; both of which are of great importance. The one, senile endometritis because it leads to constant ill health, or chronic invalidim and premature aging, and the other, cancer, because it endangers the life of the patient, and if it progresses too far before it is discovered means death within a very short time.

The constitutional symptom of these two conditions, as well as their local manifestations, are sufficiently similar to cause the one to be mistaken for the other by the casual observer who has had a limited experience with such conditions. They both give rise to a discharge that is sometimes offensive and sometimes tinged with blood and there may be occasional bleeding that might be regarded as one of the vagaries of change of life.

Enough has been said to show the necessity of careful investigation of this symptom (leucorrhoea) and it is to be hoped that the family physician, who is usually the first to discover it or learn of its existence, will be aroused to an appreciation of its very great importance and insist upon an investigation to determine its character and source whenever it is encountered.

The significance of the altered vaginal secretion during pregnancy has not been gone into, not because it is any less important, but because of insufficient time and space in this paper. On the contrary the abnormal secretion of the pregnant state is of such importance that it should be taken up separately and I sincerely hope to see the subject dealt with by some competent obstetrician.

X-Rays as a Factor in Prognosis in Joint Injuries.

By A. L. Gray, M. D., Richmond, Va.

Mr. President and Gentlemen:

The value of X-Rays in the diagnosis of conditions involving the bony structures composing a joint is too well known to admit of discussion in such an assembly as this, but too little stress is laid on what may be foretold as to the probable outcome of the treatment of these injuries, as regards the usefulness or symmetry that will follow. Careful observation and the comparison of radiographs of cases of joint injury together with the subsequent history of the case, should enable the roentgenologist to foretell with a fair degree of accuracy the result following the proper line of treatment.

The surgeon from experience, far from uniformly satisfactory, has come to dread fractures perhaps more than any other condition with which he has to deal. One of our best men has said that when he began the practice of his profession he was "Quick to run to any case of fracture that summoned" him. After years of experience, however, his "tendency is to run in the opposite direction." Cases of bad result following the treatment of fracture seldom die, and few move from the vicinity of the surgeon who treated them; they appear when he least expects them and present themselves as living monuments to his work. The old saying that "a bad sprain is worse than a fracture," was, in days gone by, a very trite one; with the penetrating eyes of the X-Ray machine, however, we are now enabled to disprove that theory.

The joints, injuries to which the roentgenologist is called upon to determine most frequently, are the wrist, elbow, shoulder, hip, ankle and knee, and of these the one which the surgeon probably dreads most is the wrist.

The Wrist.—Unfortunately this joint is not hidden by clothing and any deformity or impairment of function is constantly in evidence. There are no fractures followed oftener by unsatisfactory results than are the common fractures of the lower end of the radius. The familiar "silver fork" deformity and deviation of the hand to the radial side is only too frequent, following even the most careful and skillful surgical treatment.

An X-Ray examination, properly made, should enable the surgeon to inform the patient or his family whether this fracture can be completely reduced, and whether after reduction it is probable that the position of the fragments will be maintained, or whether there is apt to be re-displacement. It should also enable him to say with considerable certainty, to what extent, if at all, the motion will be impaired.

A Colles' fracture which does not involve the articular surfaces, and which is transverse or nearly so, however much displacement there is at first, if completely reduced, will tend to remain in position, and aside from perhaps a slight broadening of the wrist, will, with few exceptions, be attended by practically no deformity nor permanent loss of function.(1) On the other hand, an oblique fracture, though the primary displacement may be very slight, however securely the dressing may be applied after perfect reduction, there is apt to be a sufficient degree of over-riding due to muscular contraction, to produce a greater or less degree of deformity. Quite frequently the styloid process of the ulna will be found to be fractured, and the amount of its displacement will be an index to the degree of prominence of the lower extremity of the ulna.

Fracture of the lower end of the radius extending through its carpal cavity from below and in front, upward and backward, is one of the most frequent fractures in this locality. This fracture is not only an oblique one, but by reason of the involvement of the joint itself, is almost invariably attended by serious deformity as well as material loss of function. It is very difficult to maintain the fragments in proper apposition, and the surgeon should be exceedingly careful to give a doubtful prognosis. The degree of displacement here may appear very slight, but unfortunately this is not an index to the impairment of function that may result.

The Elbow.—Fractures about the elbow have from time immemorial been consid-

*Read before Tri-State Medical Society, Richmond, Va., February, 1910.

ered likely to result unsatisfactorily. The chief reason for this lies in the extent of the articular surfaces composing this joint. The fractures most liable to produce loss of function are those involving the articular lower extremity of the humerus. One of the most frequent here is the epiphyseal separation and splitting of the lower fragment that occurs in the young. This fracture will almost invariably result seriously, unless the most skillful surgical procedure be resorted to.(3)

Another almost as grave a condition is the splitting off of one of the condyles. In these cases the degree of primary displacement will, to some extent, foretell the amount of callus that will be thrown out, by reason of the probable stripping up of the periosteum. The new bone formation will occasionally be so great as to limit flexion.(4)

Fractures of the articular extremities of the radius and ulna are not nearly so prone to result seriously. In cases of simple transverse fracture of any of these bones, where the line of fracture does not extend into the articular surface, unless the callus resulting from the stripping of the periosteum be very extensive, will be followed by little or no impairment if reduction has been complete.

The Shoulder.—Perhaps injuries to this joint are less frequently correctly made out by the surgeon than any of the others here mentioned. The X-Ray specialist often discovers that an impacted fracture of the surgical neck has been treated for a considerable time by massage and various forms of passive and active motion, upon the theory that the injury was merely a contusion.(5) While it is all important to begin this line of treatment as early as possible after an injury, it is manifest what serious damage may result when the treatment is misapplied.

The most serious condition here is perhaps fracture of the anatomical neck, accompanying sub-coracoid dislocation. Rarely will it be possible to reduce the subluxation by the usual methods. This injury quite frequently necessitates a complete removal of the articular head and a resulting flail joint. Fractures involving the articular surfaces here are, fortunately, not very common, but the proximity of the brachia plexus renders these nerves especially liable to injury either immediately, from direct violence, or subsequently from the formation of callus.(6)

In cases of the upper extremity of the humerus, the relation of the fragment bearing the articular surface to the other fragment will give an idea of the degree of motion that will follow this injury, provided the nerves are not seriously involved.

Fractures of the tuberosities, though not so frequent as of the anatomical and surgical necks, are not rare. These will usually be attended by no serious loss of function.

What has been said of the upper extremity of the humerus will also apply to fractures of the head and neck of the scapula. Fractures here are uncommon except a chipping off of a portion of the rim of the glenoid cavity, which may attend dislocation.

The Hip.—While the actual diagnosis of conditions involving the hip joint is necessarily the most difficult, mistakes are less often made here than in the case of the shoulder, the reason being that a surgeon when called to attend a serious hip injury usually assumes that he is dealing with a fracture. However, the nature of the fracture and its presence, if impacted, are points that are often determined only upon X-Ray examination. Perhaps the mistake of attempting by manipulation to ascertain the presence of fracture is productive of more injury here than elsewhere.(7) It is far better to assume that an impacted fracture exists, than to attempt to elicit crepitus by methods that have been practiced prior to the introduction of the X-Rays. Here, as elsewhere, the radiograph will determine whether the usual methods should be pursued for the treatment of fracture, or whether the patient should be allowed to use the limb as soon as the tenderness sufficiently disappears.

In cases of dislocation of the hip it is not unusual for a portion of the rim of the acetabulum to be broken off, and occasionally chips may be torn away either from the upper extremity of the femur, or from the bony rim of the acetabulum.(8) These usually indicate the rupture of the ligaments surrounding the joint, and will probably forecast a longer period of disability than when the ligaments are simply split and not torn from their insertion.

The Ankle.—Of all joints, this is the most liable to sprain. Fortunately, in comparison with the number of injuries received, fractures form only a small percentage.

This joint is provided with extensive articular surfaces, but they are so situated that fractures involving them are not very common. Of the fractures here, the familiar Potts', with the internal maleolus involved, is perhaps the most serious. The degree of deformity will depend upon the lateral displacement of the astragalus, while the impairment of function will depend upon the amount of callus thrown out by the fracture of the internal maleolus and also upon the tilting of the astragalus. It is not uncommon to see a Potts' fracture which produces considerable deformity, but which does not

greatly restrict the motion of the joint.(9)

The strength of the ankle will depend largely upon the position of the astragalus with reference to the articular extremity of the tibia. If the line of support is vertical, there will be little loss of strength, on the other hand, the tilting of the astragalus occasionally results in the line of support being directed through the outer edge of the articular extremity of the tibia. However firm the bony union, or freely movable the joint may be, such a condition can only mean a materially weakened ankle.(10)

Fractures of the astragalus, especially those involving the trochlear surface, will usually be attended by a greater or less degree of limitation of motion. Other fractures about the ankle, such as the uncomplicated fractures of the maleoli, will impair the function in proportion to the displacement and the callous formation. Fractures of the tarsal bones may be expected to give exceedingly bad functional results.

The Knee.—The fracture most apt to result in permanent disability is that of the patella. Occasionally, especially in the young, there are transverse fractures, both supra-condyloid and through the upper epiphysis of the tibia. When properly reduced, these fractures will not cause permanent impairment of motion. Fracture of the patella, however, usually leaves the joint rigid, or with its motion greatly limited.

Fractures of the condyles or tuberosities are not common, but occasionally occur, and the disability depends upon the coaptation that can be secured and the extent of damage to the articular surface.

Rupture of the ligaments of this joint is usually followed by a comparatively long period of disability. The presence of a rupture in a ligament can only be determined by the chip of bone that is usually pulled off when the ligament is torn from its insertion. It is impossible to determine the presence of a rupture in the continuity of the ligaments by X-Ray examination. Unless the effusion is very great, the ligamentum patellæ will be shown on the radiograph, and should there be a rupture it may be plainly seen.

It is manifestly impossible to go into great detail in such a limited paper, but the writer hopes enough of the salient points have been touched upon to give an idea of what may be foretold by a careful study of radiographs and an accurate summary of the conditions shown.

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Diabetes Mellitus—A Sympathetic Neubosis Rationally Treated with Electricty.

By J. Monroe Liebermann, M. D. New York, Late Assistant to the Chair of Surgery at New York Post Graduate School and Hospital.

Diabetes Mellitus: An affection in which the predominating symptom is an excessive flow of saccharine urine, is *per se* only a symytom of perverted function of one or a group of organs of the "digestive" tract.

The voluminous literature on diabetes mellitus with its amount of theoretical dedactions based upon physiological experiments, as well as clinical observations, throws little light on its etiology, pathology or real character.

The still obscure etiology and pathology of diabetes mellitus suggests but little definite statement relative to either and the object of this paper is to indicate in a general way its nervous origin and its rational treatment with electrio-therapy.

Notwithstanding the fact that this disease has been known for centuries (Hirsch recognized this disease several centuries ago as "the disease of sweet urine,,; and in a Cingalese treatise of the fifteenth century it is called "Madu Mehe" or "Honey Urine") our therapeutic knowleged of diabetes mellitus has not advanced very far, and our diabetic cases are treated to day in the same manner that they were treated years ago. That is: elimination of carbohydrates from the diet, with opiates, strychnine and atropine which produce temporary elimination of glycosuria but do not prevent its reappearance with the cessation of diet and drugs.

It is the purpose of this paper to describe a treatment in the light of clinical experience extending through twenty years. This treatment has been followed for the last five or six years with fairly good results in a large number of cases.

Assuming that Diabetes Mellitus has its beginnings in a disturbance of nerve energy supply to the "digestive system" and a consequent perversion of function of the digestive glands it is but logical that the treatment should be directed primarily to the nervous system.

Men like Pavy, Eckhard, Schiff, Arthaud and Butte, Klebs, Hansen, Mering and Minkowski, Lepine, Rosenbach, Foster, Burton, Thierfelder, contributed largely to the physiological experiments on Diabetes Mellitus. And a multitude of other physiological experiments, such as tying the accessory branch of the portal vein, so as to

*Read at the meeting of the Tri-State Medical Association at Richmond, Va., on the 15th, 16th and 17th of February, 1910.

make the whole of the abdominal blood pass through the liver; compression of the aorta or portal vein; irritation of the liver with a needle or electrode, and also a number of drugs, like strychnine, salicylic acid, phosphoric acid, turpentine, corresive sublimate, all prove, that, no matter by what physiological process glycosuria is produced, whether by injury to or irritation of the nervous system, hyperaemia of the surrounding vessels must be induced.

The hypothesis of glycosuria at the present time is based upon vaso-motor paralysis of the splanchnic area the nerves of which, in health, keep the blood vessels of the liver in a state of tonic contraction; and when injured, these vessels dilate and permit a greater affliux of arterial blood into the portal vein without its becoming deoxygenized.

Tyson sums up the entire matter in the following manner:

"Among the experimental irritations in addition to the puncture of the floor of the fourth ventricle which produces glycosuria by reflex action, are injuries of the cerebral lobes of the cerebellum, optic thalamus, cerebral peduncles and even the static nerve and brachial plexus.

Finally, there is no reason why an inhibitory reflex action should not originate in the sympathetic nerve itself. When we remember that this nerve is both sensnory and motor in function and the inhibitory influence to which the heart's action is subject, is accomplished through the sympathetic as a sensory nerve and the pneumogastric as a motor, there is no reason why similar results may not be brought about by the sympathetic alone. This being the case we need not ascribe the glycogenic phenomena to a direct, stimulant action of the irritant upon the vaso-motor nerves of the liver, but may suppose a sensory influence to descend through another.

A word or two about the sympathetic nerves.

The sympathetic system comprises *two principle parts: The gangliated cords* and the *plexuses* with their associated *ganglia*.

The component elements of the plexuses and, indeed, of the entire sympathetic system, are the *ganglia* and the *nerve-fibres*.

The gangliated cord (truncus sympatheticus), of a symetrically placed pair of gangliated trunks situated anterior or lateral to the bodies of the vertebrae begins in the head and extends through the neck, thorax and abdomen to the lower portion of the pelvis, where it terminates by the cords forming a loop, situated anterior to the ciccyx and containing the *coccygeal ganglion* or *ganglion impar*.

The plexuses (plexus sympathetici) are a series of more or less distinct collections of group of nerve-cells (ganglia) and fibres, the most important of which are the *cardiac, the pulmonary, the aesophagcald the sotar and the pelvic, also the suprarenal.*

The *Solaa* or the *Epagastric*, the largest of the series, supplies all the viscera in the abdominal cavity and is in communication, due to its great network of nerve-fibres, with the most important plexuses in the thoracic and abdominal cavities. It is subdivided in two important portions, (1) the semilunar ganglion, (2) the coelic plexus.

A ganglion may or may not be connected with a spinal nerve, but it is always linked by *association cords* with other ganglia.

Other communicantes are the *rami communicantes* which are divided into two groups, the *white* and the *gray rami communicantes*.

The white rami communicantes are composed almost exclusively of the visceral branches of certain of the spinal nerves which use the sympathetic system as the pathway by which they arrive at their destination. The fibres arising from the anterior root are called the *splanchiuic efferent fibres* and those from the posterior root the *splanchnic afferent*.

The *splanchnic afferent fibres* furnish motor impulses to the unstriped muscles of the vessels and viscera, and secretory ones to the glands of the splanchnic area; they also convey motor impulses to the heart.

The splanchic afferent fibres are the sensory fibres of the splanchnic area and, pass by way of the posterior roots into the spinal cord.

The *gray rami communicantes* are bundles of axones of sympathetic neurones which pass from the gangliated cord to each one of the entire series of spinal nerves.

The *association cords* are the longitudinally disposed bundle of fibres comprising the interganglionic portion of the gangliated cord.

From this short anatomical resume, we see that, although the supply of the thoracic; abdominal and pelvic organs constitute an important part of the duty of the sympathetic nerves, it is by no means their entire concern: the innervation of the involuntary muscles of the vessels and of the skin, and of the glands throughout the entire body being likewise their task,—they follow the course of blood vessels to meet their obligations to the structure within the body and by way of the rami communicates join the somatic spinal nerves, which they accompany to all parts of the body, to the ves-

sels, skin and glands outside of the body cavities.

From all this, it is evident that we have in the sympathetic nervous system, due to the free communication between its ganglia and the cerebro spinal nerves and vagi, a medium, by which the remotest as well as the most superficial parts of our body are reached and controlled, stimulated, excited, irritated, anaesthetized and calmed by the same set of nerves originating from the same plexus.

From the aforesaid (a short review of the physiological and chemical deduction and the anatomical resume of the sympathetic) we know that glycosuria following the hyperacmia of the surrounding vessels of the liver is induced either (1) by injury or irritation of some nerve of the cerebrospinal system that stands in direct or indirect communication with the sympathetic system; or (2) by injury or irritation of the filaments or ganglia of the sympsthetic system direct.

Reasoning from this standpoint it is plain that if we can relieve the hyperaemia so induced, we will restore physiological balance and correct the fnnction of that part of the nervous system which induced the hyperaemia.

Searching through the literature on Diabetes Mellitus I fail to find anything, as far as treatment is concerned, that would indicate even a suggestion to relieve the hyperaemia around the vessels of the liver. And to accomplish this I know of no better method of treatment than acting through sympathetic system by application of the proper modalities of electricity.

We are all aware of the therapeutic value of electricity in general and of its modalities in detail. Physiologically I can only repeat what I have said in my paper on Electre Therapy, that both high potential and frequency currents are Nature's own remedy and are incomparable stimulants, affecting nutrition and metabolism of the tissues, inducing a renewed vaso-motor tone, awakening cellular activity of dormant organs, sending stimulus into the deep ganglia and through them exercising a reflex action upon the centers of the cerebro-spinal and sympathetic systems. They are strongly indicated where penetrative action is required in order to remove deep seated infiltration, congestion or stasis.

Hence to treat Diabetes Mellitus I selected the high potential and high frequency currents. Both currents are best indicated from pathological standpoints in disturbances due to errors of nutrition. The therapeutic value of polarity of electricity, which I explained in my paper on "Electre Therapy," is followed through all modalities of electricity.

In the case of Diabetes Mellitus I use the indirect positive spark or brush with the negative insolation or the same polarity in high frequency effleuve. The treatment of Diabetes Mellitus by these two currents appears to me both reasonable and scientific, for if we study carefully the successful phenomena in this disease we would find the pathological changes taking place so rapidly that it is very often astonishing and even marvelous to both patient and physician. Both currents high frequency and potential, differ very little as far as therapeutic indications or effect are concerned. The high frequency is more pleasant to the patient than the static, due to the absence of pain with high frequency but requires more seances.

In Diabetes Mellitus the current is applied over the epagastrial-region directly over the coelic plexus, semilunar and splanchnic ganglia directing the current from left to right. The application should be given from ten to fifteen minutes, in intervals sufficiently to permit the patient not to become exhausted. The patient usually, after the treatment feels the sedative effect and usually experiences a gentle restfulness beginning with a pleasant glow over the entire body, breaking into light and warm perspiration, with a pleasant tired feeling and, usually falls asleep. After a short treatment, the predominating symptoms of Diabetes Mellitus subside little by little. The polyuria, excessive thirst or hunger are decreasing and the sugar is diminishing in quantity. The general nutrition is improving, good spirit and vitality shows through every action and the patient feels the improvement himself with every treatment. The usual time required is from six months to a year or a year and a half to accomplish a cure.

During my early treatment (in the latter part of 1903 and early part of 1904) I met with a great many failures and reverses, but I attributed them, as I will show later, to my adherence to the carbodydrate free diet theory. As soon as I abolished this theory and with the help of the spinal test which I applied freely, out of 144 cases I have only 62 cases without any results, and this was more due to the negligence and lack of attendance on the part of the patients. And even these 62 cases, almost all of whom being treated for periods of from three weeks to three months, have improved, showing a diminution in per-

"Electro Therapy: An Indispensable Method In Nervous Dermal And Genite-Urinary Diseases. By Dr. J. M. Liebermann in the American Journal of Dermatology. October, 1908.

centage of sugar, decided relief in polyuria, excessive thirst and hunger. Some have even gained in weight. A good many of them failed to follow out the treatment on account of financial or other similar embarrassments.

While to my personal knowledge I have had no deaths from diabetic coma, I do not wish to say that such may not have occurred. But if so, then it was after they passed from being under my care.

To locate the seat of the nervous irritation I use a test which I call "the spinal test." I use it in a great many nervous diseases as I do in Diabetes Mellitus. While the test is not up to perfection and needs a great deal of improvement, it has served me in many a case to clear up an obscure diagnosis. In cases where the nerves were irrited the results were best and quickest. The test is very simple.

Applying a long and broad wet pad made of linen and cotton, the kind described by me in a recent article, covering the active thoracic and abdominal part of the body, you place your patient on top of it, face downwards, having previously attached the positive pole of the direct current to it, the negative pole being attached to an electrode covered with a wet sponge or cotton. The small galvanic current of not more than five milliamperes suffices for the test. Pass the wet electrode on both sides of the entire length of the spinal column several times and, remarkable to say, a few minutes after removing the electrode, well defined, red spots appear, which in a short time tend to become more vivid and sometimes assume a bluish hue. These spots will, in diabetic casses usually appear in the dorsal region and preferably on the right side.

Permit me to cite a few cases in support of my statement and in proof of the test.

Case 1. Mr. M. J. D.; Contractor, age 58. Had Diabetes Mellitus for 12 or 14 years and had been under the treatment of many physicians. Voids normal amount of urine. Spec. gravity 1022; sugar 4%. Spinal test applied. Red spots appeared on right side of sacrum. All the spots were within an area of two inches. At the end of one year and three months treatment, no sugar, no albumen, gained about 15 to 20 pounds. Test applied. No indications of red spots anywhere. Within a month of being discharged went to Cuba. Got an attack of diarrhoea lasting three or four days. Was treated by the surgeon on the boat coming back to New York. Diarrhoea contined for a week. Treated by the family physician. When he became debilitated, was advised to go to Saratoga. Came back in two weeks. Lost 15 to 20 pounds. Called at my office the day after arrival from Saratoga. Examination of faeces showed a high amount of undigested milk, casein, and fat. Spinal test applied. Red spots appear on the sacrum and were quite prominent. Lower abdomen was treated daily with static and high frequency and three days afterward bowels were perfect. Within a month was again restored to good health. Last time had urine examined Jan. 18, 1910. No sugar, no albumen, gained in weight possibly ten to twelve pounds and passed a high insurance policy. From this report and the spinal test we conclude that (1) the original irritating cause of glycogenic hyperaemia in this case was located or at least reflexed in the sacral region. (2) That were it not for the restored metabolism and also restored function of the nerves in the glycogenic area the neurotic enterocolitis would have proved fatal: the usual consequence in these cases being diabetic coma and death.

Case 2. Mrs. B. Superintendent of large establishment. Was brought to me in 1896 (at that time at the age of 26) by her husband for sexual apathy. On examination no special features except that she voids 340 ounces of urine a day and suffers with an extreme thirst. Also once in a while with hunger. Specific gravity 1026. Showed 6 ½% of sugar. Is extremely nervous and up till 1905 was treated by me to the best of my ability according to the advise received from my teachers, text books, and colleagues. And while I administered the medicine, she also religiously took it and while she did not improve much I she did not become worse. In 1904 d started to treat her with electricity an previous to this I applied the spinal test. She was one of the first patients that I treated thus in 1904. This showed the extravasation spots around the lumbar region. She was treated with static electricity and within a year or so there was no sugar in the urine, thirst diminished and polyuria disappeared. The woman gained in weight and even the obstacle of which the husband originally complained was overcome.

Case 3. Child, 2 years 7 months old. Infantile paralysis of lower limbs. Rigidity of muscles and joints. No relaxation of knee or ankle joints. No reflexes. No muscular power in the hands. Neck from seventh vertebrae and up, strongly bent so that the chin pressed against the breast and child forced to look up from under

"J. Monroe Liebermann, "Locomoter Ataxia successfully treated with Ultra Violet Rays," N. Y. Med. Journal, Feb, 18, 1905.

eyebrows when desiring to look upwards. Mother complained that the child suffers thirst. "He can drink all the time." With this there was polyuria. Mother complains that she has to change diapers every ten or or fifteen minutes. Voids more than 2½ ounces at one micturition, and if mother's statements be correct, rate amount to ten ounces per hour if not more, and to 240 ounce in 24 hours. On examination urine shows specific gravity 1028. Sugar 6%. Upon the spinal test being applied, red spots appeared on both sides of cervical region between the third, fourth and fifth vertebrae, showing the extravasation points. Was treated daily for one month, special attention being paid to chest, neck and extremities. Within three weeks rigidity subsided. Child can draw up its legs and extend them. Started to creep. When placed on the floor stands flat on its feet. Co-ordination improved. When given a chocolate candy puts it in his mouth. Says "Mama." Neck greatly reduced in curvature. Child looks almost straight forward. Thirst and polyuria greatly diminished.

Due to statement of mother that the child is too heavy for her to carry such a long distance (she lives in Brooklyn) and thanks to the remark of a kind colleague who said that the child was an idiot, treatment was discontinued. Had no chance tore-examine urine or to reapply test.

The theory of carbohydrate-free diet is based upon the idea, that the saccharine and amylacious foods fail to be consumed in the economy of the body, not being oxydized in the blood as they should be. Hence if these foods be excluded from the diet the symptoms of glycosuria will disappear.

Careful observers and clinicians like Osborne, Croftan, Labbe, Eccles, Goodhart, Falta report unsatisfactory results from carbohydrate-free diet in Diabetes Mellitus. They cite cases of diabetic coma directly due to the carbohydrate-free diet claiming that the body "being deprived of carbohydrates continuously must necessarily consume itself or starve in order to supply the missing unit."

Fats. Some good observers and clinicians advise the administration of fats, others do not, and look upon it with suspicion. Fats used with carbohydrates can be taken in large quantities without any disturbance in digestion. I usually advise sweet butter and sour cream to be taken with the meals in possible larger quantities than usual. Other fats given alone, and in large quantities, induce very often a marked indigestion.

We listen to the advice of good men advising a diet of starch and sugar. Another group of equally good men advise giving no starch or sugar. Both groups consist of sincere observers. What is to be done? Physiological chemistry is the basic fact and it is our business to find if possible the influences that restore to the normal the physiological chemistry of the cell, or what is inclusively termed cell metabolism.

Diet. As to the rules of diet they are as follows, providing the idosyncrasy of the patient demands special instructions:

The diet must be a mixed and nutritive one.

Eat slowly.

Masticate your food thorougly.

Partake of a small meal at a time. Better 6 or 8 small ones than two or three large ones.

Abstain from all carbonized liquor like champagne, beer, ale, ginger ale and even carbonized water.

If liquor must be drunk use whiskey or good brandy diluted with plain water. I advise a great deal of cooked vegetables and fruit, cook cabbage, spinach, cooked apples, prunes and tamarinds.

Case 4. July 1906. Paul N. 48. No thirst, no polyuria. Voids 70 ounces a day. There was no wasting. 3 ½ per cent sugar. Specific gravity 1029. Loss of sexual desire. Was treated with high frequency and static. No special diet.

March, 1908. Discharged cured. No sugar. Sexual desire restored.

Case 5. Jan. 1905. C. S. Female 28 years Complained of polyuria, thirst and wasting. Specific gravity 1030. 4 ½ per cent sugar. Suffered with Pruritis Vaginae and under the arms. High frequency and static electricity. Magnesia sulphate solution baths.

Dec. 1906. Discharged cured. Gained 18 pounds. No special diet.

Case 6. March, 1907. Fred W. 56 years. Retired. Noticed that he used to pass urine oftener than usual. Thirst and bulivia. Had urine examined in labatory. 64 ounces in 24 hours. Specific gravity 1028. Sugar 2 per cent. Trace of albumen and casts. Treated with high frequency and static electricity. July 15, 1907.—Voids 48 ounces in 24 hours. Specific gravity 1024. No sugar. Trace of albumen, no casts. Advised trip to Europe. Came back in September, when urine showed no sugar. Was treated for other complications. No special diet.

Case 7. Jan. 1908. John L. 16 years. Voids 320 ounces in 24 hours. Specific gravity 1030. Sugar 4 ½ per cent. Hight 5 ft. 8, weight 96 pounds. Six months ago fell in an air-shaft. Excessive thirst,

no hunger. Treated as previous case. No special diet.

May 1909. Discharged cured. Gained over 30 pounds.

Case 8. Jan. 1908. Katie D. 34 years Married. 3 children. Had no miscarriage. menstruated regularly. Was operated in the latter part of 1906, for small ovarian tumer. Lost over 40 pounds in the last six months. Voids 240 ounces in 24 hours. Specific gravity 1028.

Feb. 1910. No sugar. No polyuria. No special diet.

Case 9. Sept. 1909. Carrie K. 12 years. Tall, very poorly nourished. Exceptionally bright in school. Weighs 83 pounds. Tubercular history on both sides of the family, although neither mother nor father are sufferers of phthisis. Suffers with Diabetes Mellitus for the last two years. Voids between 120 to 140 ounces of urine in 24 hours. Specific gravity 1026. Sugar 4 per cent. No albumen.

Treatment. Physical exercise in fresh air. Expansion of chest, and deep breathing ordered. High frequency and static electricity.

Jan. 28, 1910. Has gained 14 pounds. No sugar in the urine. Voids 80 to 85 ounces in 24 hours. Still in treatment. No special diet.

Drugs. As to drugs I will say that I do not use many. Opium, strychnine, and atropine or its compounds are usually used. But we should not use drugs in diabetes mellitus in a general way. Their only justification is to meet symptoms.

Exercise. Physical exercise is of great importance. Breathing exercises with chest expanded, at an open window, first thing in the morning or in the open air during the day is imperative. But the exercise as well as playing at games must be advised and regulated by the attending physician with due regard to the circulation and not carried on to over fatigue.

Warm baths before going to bed and a sponge with a solution of Magnesia Sulphate three or four times a week. *Cold* baths only in large plunges or in the sea during the hot part of the day when the patient can exercise by swimming.

In conclusion I wish to say that,

Diabetes Mellitus should be placed on the list of curable diseases. The other complications, such as nervous, pulmonary, thoracic, digestive and genito-urinary should be treated secondary to Diabetes Mellitus.

Never use the knife in Diabetes Mellitus.

Electricity is Nature's own remedy in Diabetes Mellitus; the sooner applied, the quicker the result. But, and this I must emphasize: the one who applies it *must* be one who thoroughly understands its potentiality and its modality.

Let me make a summary statement. Back of all that has been written relative to this nutritional disorder, so-called Diabetes Mellitus, lies the primary and vital fact that we are dealing with disordered cell metabolism which has its origin in a disadjustment of the ego to its environment, what the world calls worry.

121 St. Nicholas Ave.

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Early Celiotomy for Ovarian Tumors.

By J. E. Rawls, A. B. M. D., Surgeon to Lakeview Hospital, Suffolk, Va.

The past century has wrought miraculous progress in medical science. Wonderful, as these advances have been, the greatest achievments have taken place in the department of surgery, which Chamisso terms

"The seeing portion of the healing art." Today surgery has been made, as nearly perhaps as it ever can be, an exact science, to which all branches of science have been made contributory. Hence this progress, in a way, enables me to advocate early radical treatment for ovarian tumors.

An advocate of early celiotomies and exploratory abdominal incisions in the days of Ephriam McDowell, the father of ovariotomies, would no doubt have been classed as a surgical criminal. But today what a contrast. With the operating table robbed of the galling manacles of pain, modern means of controlling hemorhage and preventing infection, and in the hands of a skilled surgeon, a simple celiotomy offers no more mortality than an oceanic voyage. It is true there are certain dangers and risks taken but no more than are entailed in a well governed steamboat line. Since this is true we no longer delay in opening the abdominal cavity, when innicated in abdominal and pelvic diseases.

In no condition is early celiotomy more strongly indicated than in ovarian diseases, and especially in ovarian tumors. No organs in abdominal and pelvic cavities are subject to more pathological changes than the ovaries. These are especially victims of tumors. These tumors are both benign and malignant, and it is this latter class of tumors, which constitute about twenty to thirty per cent of all ovarian tumors, that greatly gave birth to the title of this paper.

The importance of early operation in this class of cases was truly emphasized in a surgical experience of mine some months ago when I operated on a patient who had been for some time a doomed victim of two large pelvic tumors situated in the region of each ovary. These tumors the right and the left weighed three and a half and one and a half pounds, respectively, which proved microscopically to be small round cell sarcomata of the ovaries. This case was reported in detail before the last meeting of the Seaboard Medical Society.

The various ovarian tumors, save simply falicular cysts, are found in any period of life and a few have beon observed in the Foetus. Some of the tumors are more characteristic of certain ages. Fibroma, myoma and sarcoma are met with more frequently in young women and children, while carcinoma is more frequently observed between the ages of thirty and sixty years than in any other time of life. Simple folicular cysts only occur between puberty and menopause. The greater number of glandular cysts are observed between twenty and fifty years of age, while dermoid cysts are more common before puberty. The papillary cysts are not often met early in life but the greatest number of cases are met between thirty and fifty years of age and constitute about 11 per cent of all large ovarian cysts.

Ovarian tumors, both benign and malignant, have to a more or less extent symptoms in common. Pressure symptoms are found, such as pelvic and reflex pains; irritable bladder and other urinary disorders; constipation and other gastro-intestinal disturbances; cardiac and respiraroty disorders, such as irregular heart action and dysponea; ascites and aedema of the lower extremities, vulva, vagina and abdominal wall. Menstrual disturbances are met at times but are not usually marked. Sterility is the rule especially where both ovaries are involved. The general health, ordinarily, is not affected as early and as rapidly by benign as by malignant growths. The progress of the general symptoms occasioned by bengin conditions is slow, while with malignant more marked and rapid is its course. Cachexia and the gradual progressive loss of strength and weight are almost characteristic of maligency. Physical signs are likewise in common to a great extent in bengin and malignant tumors of the ovaries. Examination made by vagino-abdominal and recto-abdominal palpation we are able to elicit the position, shape, size, consistency, mobility and relations of the tumor.

So for the history, clinical symptoms and physical examination of the patient are of but little niagnostic importance as giving absolute proof of distinction between the different varieties of ovarian tumors. It is true that rapid growth, ascites, chronic peritonitis, oedema of the lower extremities, cachexia and gradual loss of strength and weight are significant symptoms of malignancy, but are late manifestations, and the proper treatment should not be delayed or postponed by using non-efficient remidal agents until these death-dealing symptoms develope.

To me it seems the only wise and efficient treatment of ovarian tumors is removal by abdominal section. The importance of early operation cannot be too urgently advocated. We find many more or less serious complications taking place in the bengin tumors if proper treatment is delayed. Such as suppurative inflamatory conditions; also hemorhages, twisting of the pedicle, rupture, adhesions to adjacent viscera, and especially the great tendancy to undergo malignant degeneration. There is less danger to the patient to operate on a small pelvic tumor than a large abdominal growth which has undermined the

victim's general health.

When we consider the malignant tumors of the ovaries we find early surgical procedure doubly more imperative. Here we have a probable proportion of one malignant to three of benign of all ovarian tumors, and our only hope in this class of cases is early diagnosis—early removal by abdominal route.

Crile has truly said that it was unfortunate that cochexia and glandular enlargement should be classed symptoms of cancer, for when diagnosis is delayed until these two symptoms are developed, hope for cure by surgical means was in vain.

Statistics show that over half of malignant ovarian conditions are belateral. In quite a number of these cases microsocopic foci are found in the apparently healthy ovary. This would point to the advisibility of removing both ovaries in every case. In a great majority of cases this is true, especially should both be removed in carcinomata and if left in sarcomato the risk should be thoroughly explained and the patient kept under constant observation.

It is stated that cancer if taken in time is either preventable or curable in at least 95 per cent of the cases. If this be so may we be up and earnestly about our professional business. The great mortality in the past in malignant conditions of the ovaries have been no doubt in a great part a medical and not a surgical mortality. May we discard for all time the terms "Female trouble" and "Change of life" and treatment as douches, and tampons, and greece and galvanism in this class of cases, in a fruitless effort to give relief to these poor victims, and in their stead make a thorough and positive examination of every patient that consults us, and if by physical examination an ovarian tumor is detected, advise and urge an immediate removal, before the golden days of hope for surgical relief have ebbed away into the past to be no more.

Acid-Intoxications and Their Therapeutic Indications.*

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Of the various forms of auto-intoxication, of which in general there is much to learn, poisoning by the acid products of metabolism, or so-called acid-intoxication, is probably the best understood from the clinical point of view. This form of intoxication occurs in a most characteristic manner in diabetes mellitus, and is the chief feature of this malady against which we direct our theraputic efforts. The existance of well marked acid-intoxication is a complication of many conditions not in any way associated with glycosuria, however, as witnessed by its not infrequent occurrence in prolonged fevers, chronic diseases associated with inanition, marasmus, during experimental fasting and after surgical anasthesia. The purpose of this paper is to direct attention to the serious nature of acid-intoxication as a complication in diseases other than diabetes, and to discuss briefly the clinical features and simple treatment.

Acid-intoxication is brought about by a condition of perverted metabolism in which there is an over production of acids in the body, with or without decreased elimination of these acids. Many different acids are normally produced by the ordinary metabolic changes that are incident to our vital activities, such as carbonic acid, urie acid, etc., but in conditions of acid-intoxication the most important acids are the so-called "acetone bodies," namely, B-oxybutyric acid, diacetic acid and acetone. These three substances are closely related to each other, and all of them owe their origin to a peculiar inhibition of normal processes of oxidation.

The chief feature of acid-intoxication is a reduction of the alkalinity of the blood and other body fluids. This is associated with an increased excretion of ammonia in the urine and the appearance of acids that are not normally present, or present in the very minutest quantities. The deleterious effects of an acidosis, as thec ondition of acid-intoxication is often called, are not so much due to the presence of the acids *per se*, but to the withdrawal of large quantities of alkali from the cells and fluids of the body in the attempt to neutralize the acids. In this way certain basic componants are removed from the tissue proteids, rendering the cells unfit to carry on the life processes. The larger the quantity of pathological acid to be eliminated, the greater is the demand made upon the alkali contents of the body, with corresponding danger of exhausting these resources.

Without entering into detail as to the origin of these acetone bodies, the important fact to be noted is that the taking of food exercises a distinct influence on the occurance and excretion of these substances. Slight traces of acetone may be found in the urine of healthy individuals, but it is never accompanied by diacetic

*Read before the twelveth annual meeting of the Tri-State Medical Association of the Carolinas and Virginia, Richmond, Va., Feb. 15-18, 1910.

acid or B-oxyubtyric acid. Simple experiments have demonstrated that the excretion of acetone is greatly increased during periods of fasting. Moreover, if a healthy person is placed on an exclusive diet of meat and fats, acetone regularly occurs in the urine and occasionally diacetic acid. This occurs even when full caloric values of proteid and fat are administered. Finally it has been proved that the increase of acetone bodies in the urine is due entirely to the removal of carbohydrates from the food.[1]

Acidosis, then is not to be regarded as a clinical entity but is merely a symptom. It may occur in a number of non-diabetic conditions, and is practically always due to the restriction of carbohydrates in the diet. The effect of an acid-intoxication as a complication in an individual already seriously ill is extremely detrimental and against recovery. It is of the utmost importance that the condition be recognized promptly when it occurs, especially as the symptom may be made to disappear entirely in twenty-four hours or less by the administration af sugar to the patient.

The clinical recognition of this pathological acidosis, as it occurs in non-diabetic cases, is not at all difficult. There are three chief symptoms: (1) *fl characteristic sweet odor to the breath.* The patient's expired air has a definite fruity odor which is not unlike the smell of chloroform. The odor is often sufficiently strong to scent the whole room so that the physician notices it as soon as he enters. (2) *Rapid deep respirations.* It is observed that the patient's respirations are accelerated but not shallow. The breathing is often audible but rarely sterterous. With this excessively active respiration there is no cyanosis. This is the typical "air hunger" of Kussmaul.[2] (3) *The occurance of increased amounts at acetone in the urine.* The presence of acetone may be recognized by Gunning's or Lieben's test without distiling the uriner Occasionally Gerhardt's ferric chloride reaction is obtained, denoting the presence of diacetic acid. A fourth inconstant symptom that may be mentioned is stupor or actual coma. The acidosis itself may be severe enough to produce coma, but the condition may be due to the toxemia of the primary disease.

As typical examples of acid-intoxication occurring in the course of typhoid fever, mention is made of the three following cases weich have come under personal observation:

Case 1. The patient was a young jewish woman, admitted to the hospital in the third week of a severe attack of typhoid feever. For two weeks she was placed on a diet of milk and lime water, alternating with egg-albumin. Profuse hemorrhages from the bowel then occurred and for this reason all nourishment was practically withheld except very small amounts of plaid egg-albnmin for three days. She was extremely toxic and in a stupor.

The acidosis developed rather suddenly and on making my last vtsit for the night it was at once observed that a sweet, fruity odor pervaded the room and that the patient's respirations were 46 to the minute, deep and audible, as if she were panting. A catheterized specimen of urine was obtained and showed the presence of an iucreased amount of acetone. The test for diacetic acid was not made. The patient was at once ordered to receive by mouth one-half ounce of cane sugar dissolved in water every two hours. In fourteen hours the peculiar breathing and the sweet odor to the breath had both disappeared, and, as it happened, this occurrence seemed to mark a crisis in her disease, as she began to improve promptly and went on to a complete recovery.

Case 2. Patient was a school girl, age 19, seen in consultation at her home in North Carolina. The diagnosis of typhoid fever was not confirmed by blood examination but she subsequently ran a typical course with several intestinal hemorrhages, and the disease was contracted during an epidemic at a boarding school in which four other pupils came down with fever.

Patient was seen in May, 1908, on the 13th day of her disease, and I made the following note at the time: "Patient lies flat in bed and is evidently very ill. Is well built and well nourished. There is almost constant twitchiug of the muscles of the right shoulder and right hand, while the left hand is held in the obstetrical position, fingers extended, thumb opposed, such as one sees in tetany. The whole body is held rigidly, although the head can be bent forward without evident discomfort. There is no Kernig's sign. Knee jerks present on both sides and not exaggerated. Pupils moderately dilated, equal in size, react to light. Patient does not answer questions, but

1 Cf. von Noorden, "The Acid Auto-Intoxications," E. B. Treat & Co., N. Y., 1906.

2 The explanation of this interesting condition is given by Wells ("Chemical Pathology," W. B. Sahnders Co., 1907, Page 451). "Normally the blood carries the O_2 away from the tissue; to the lungs in combination with the inorganic alkalies of the blood, of which sodium is by far the most abundant. This combination is the bicarbonate of sodium (or other base), which in the lungs is decomposed into the carbonate, the CO_2 escaping into the alveolar air, according to this equation:

$$2Na\,HCO_3 = Na_2\,CO_3 + H_2O + CO_2$$

The carbonate thus formed goes back to the tissues to again combine with more CO_2 and form bicarbonate. If acids are introduced into the blood they combine with the alkalies there, forming neutral salts which are eliminated in the urine, and in this way the amount of alkali in the blood is reduced, with a consequent reduction in the capacity of the blood to carry CO_2 away from the tissues; the amount of CO_2 in the blood sinking from the normal 24 per cent. to as low as 2.5 and 3 per cent. Consequently, in acid poisoning the CO_2 produced in metabolism accumulates in the tissues where it is formed, and blocks the processes of oxidation, so that the animal suffers from asphyxia exactly as if it were deprived of air. In other words, the lack of alkalies in the blood in acid intoxication checks the "internal respiration," as intracellular gas exchange is called, by preventing the removal of CO_2 from the cells.

understands requests and opens mouth and attempts to protrude tongue when told to do so. The breath has a very heavy sweet odor. No cyanosis of lips or finger tips.

"Pulse regular in force and rythm, 112 to the minute, moderate volume, low tension, not dicrotic. Temperature 103.2. Heart not enlarged, action regular. Sounds clear and of normal relative intensity. Second pulmonic strong and clear.

Lungs: chest symmetrical and well formed. Respirations deep and rapid, 44 to minute, slightly irregular in rythm but not Cheyne-Stokes in character. Percussion note resonant throughout. On auscultation the breath sounds are diminished in both lower axillae. Elsewhere there is no modification of the breath sounds and no roles heard.

Abdomen is full and tense and lies on a level with the ribs. Walls held rigidly although there is no muscle spasm. Spleen cannot be palpated. A few rose spots noted today for the first time. Respiratory movements present. No dulness in flanks. No masses and no apparant tenderness anywhere."

Treatment was outlined as follows: Continuous saline solution by bowel; cold sponges every 3 hours whether the temperature calls for it or not; cane sugar, 1 2 ounce, dissolved in water every 2 hours. Albumin to be substituted for beef extract. Buttermilk to alternate with the albumin. Whiskey to be increased till the odor appears on the breath. Urotropin, 30 grains daily.

The rapid breathing and the sweet odor of the breath disappeared the following day and the patient became rational in two days. The fever continued for three more weeks but good recovery ensued. Several hours before I saw the patient another consultant had made a diagnosis of a complicating pneumonia because of the rapid breathing, although the respirations were no shallow as one sees in pneumonia. The urine was not examined in this case.

Case 3. Patient was a female child, age 6 years. her illness began on Aug. 25, 1909, with symptoms so suggestive of acute appendicitis that her physician brought her to Richmond hospital from Southwest Virginia. Distinct tenderness persisted over the head of the cecum for nearly one week. On the 9th day of her disease she developed some rigidity of tne neck and her temperature reached 105.2. Knee jerks were normal and there was no Kernig or babinski sign. Lumbar puncture was done but showed a clear sterile fluid. Positive Widal reaction obtained on the 11th day of the disease. The child was very toxic with considerable delirium and subsultus.

On the 13th day the breath had a heavy, sweet odor and the respirations became very rapid and deep. Three days prior to this the milk diet had been discontinued because of the diarrhea with curds in the stools, and albumin flavored with lemon or orange was the only nourishment given. The evident acidosis cleared up very promptly as soon as cane sugar was added to the albumins. On the 31st day of the disease the patient had two moderate sized hemorrhages from the bowel. She made a good recovery from her tedious illness and was discharged from the hospital on the 57th day. It was unfortunate that no examination for acetone in the urine was made in this case.

The three cases just cited are characteristic examples of acid-intoxication as it is likely to occur in prolonged fevers. The condition is also met with not infrequently in acute inflammatory affections of the abdomen, in carcinoma of the stomach, and is often observed in the final stages of many diseases in which the patient has not been able to take or to retain nourishment, and consequently has lacked the necessary carbohydrate ingestion.

For several days after the administration of an anesthetic, particularly chloroform, acetone is found in the urine with considerable regularity, and in some cases a well marked condition of acidosis develops. This has been attributed in part to injury to the parenchymatous organs, particularly the liver, by the chloroform.[2]

Pernicious vomiting of pregnancy is another condition that depends upon a definite acid-intoxication. A recent monograph by Underhill,[4] of Yale University, contains the clinical records of cases together with exhaustive chemical analysis of the urine. He believes that the toxemias of pregnancy are not produced by hepatic lesions but can be accounted for by the starvation of the patients dependent upon the vomiting. This author shows that the composition of the urine in pernicious vomiting is strikingly similar to that which obtains in the urine voided during inanition. "Carbohydrate supply is apparently the factor determining the relative output of urea and ammonia, since in pernicious vomiting of pregnancy, as in inanition, the administration of this substance by mouth or by rectal enemas is followed by a distinct tendency toward the resumption of the normal elimination of these compounds." In the treatment of this condition Underhill suggests the employment of enemas of dextrose solution by the Murphy drop method. The occurrance of an acidosis in non-diabetic conditions demands as prompt a recognition as when it develops in cases with glycosuria. Prophylactic treatment consists in the regular administration of some carbohydrate in the diet. Should acid-intoxication occur, it can be rapidly and effectually controlled by giving the patient cane sugar by mouth. If the patient cannot swallow, or if rapid absorption of the carbohydrates from the stomach cannot take place, as, for instance, in severe gastro-entritis, von Noordon (loc. cit.) advises the subcutaneous on intravenous injection of monosacharides (dextrose or levulose) dissolved up to 10 per cent. strength in normal salt solution; or dextrose may be administered by the bowel, as mentioned above. Alkalies, of course, may also be given, but are usually unnecessary in the control of acidosis occurring in non-diabetic conditions.

3 Bevan and Favill: Acid-intoxications and late poisonous effects of anesthetics. Jour. Am. Med. Assoc., 1905, Vol XLV, p. 691.

4 Underhill and Rand: The peculiarities of nitrogenous metabolism in gernicious vomitlng of Pregnancy. Arch. of Int. Med., 1910, vol. V, p. 61.

The Uses of Radium in Medicine and Surgery.*

By G. W. Drake, M.D., Hollins, Va.

In December, 1895, Rontgen read his paper announcing the discovery of x-rays; and March 30th, 1866, I read my first paper before the Tennesse State Medical Society on "X-rays and Their Prospective Uses in Medicine." I have seen my predictions verified.

In Danville, Virgiia, February 23rd, 1904, I read *my* first paper, and so far I know, *the* first paper in the South, on "Radium Rays; and Their Therapeutic Possibilities." I have lived to see my predictions verified.

Radium is the world's wonder and the scientific puzzle of the twentieth century. It is a miniture vacuum tube, and emits rays spontaneously, identical with those emitted by Crooke's tube. They have been named alpha, beta and gamma rays, and they correspond respectively with the anode, cathode and x-rays emitted by Crooke's tube.

The alpha rays are easily absorbed, the cathode are penetrating and the gamma very penetrating.

Thirty billions of alpha particles are thrown off per second from five milligrams of radium bromide (the amount in one of my tubes) but they are all absorbed by the glass, or are prevented from passing out, and none escape. They give a violet color to the glass.

Ninety-nine per cent. of the radium radiations are alpha rays. The gamma rays are the therepeutic rays, and will penetrate every known substance.

The *uses* of *radium* in *medicine* are *numerous*, but the number of physicians who use it are small, on account of the scarcity and high price of the pure article, and the scientific knowledge essential to avoid doing nore harm than good. Like a two-edged sword it may cut both ways, if in unskilful hands.

The long list of of diseases for which treatment by radiium are recommended includes the following: tuberculosis, diphtheria, malarial fever, typhoid fever, scarlet fever, fermentative indigestion, malignant disease of the stomach and intestines; and as a local application on compresses; in sprays, gargles, collyria, etc.; in throat diseases and eye diseases; also bronchitis, dyspepsia, nervous disorders; neuralgia; rheumatism and cancer.

Dr. Darier, of Paris, is reported to have rendered a cancer of the face painless by the application of radium, and to have found quick and pain-killing effects of radium in certain diseases of the eye, also to have relieved an acute facial parylisis in one day by radium; and two cases of nervous spasms, in which the paroxyms occurred three or tour times a week, are reported to have been relieved after the application, for two or three days, of a weak radium preparation to the temples of the victims.

The forms in which radium is used are important, and we mention the following: radiumized water, radiumized air, radiumized bismuth, radiumized charcoal, radiumized gelatine. These substances are impregnated or coated over with radium deposit from radium emanation, and they emit radium rays.

The action of radium rays depends on the dosage employed, the nature of the disease, and sometimes the idiosyncracy of the subject.

Radioactive coconut charcoal in sealed tubes retains its activity sixteen days or longer. Dr Shober sees no reason why radiumized coconut charcoal should not be incorporated in ointments or gelatine or other solutions and applied in cases of leg ulcer, lupus eczemas, and other cutaneous lesions.

Preparations containing radium emanations are said to have been found useful in articular rheumatism, chronic neuritis, and sciatica, Brine baths plus radioactive emanations were used, and a relapse was cut short by the internal administration of radiumized water.

Dr. Morton has found that the best method of producing radioactive water is to immerse 50 to 100 pounds of high-grade pitchblende in a vessel of water.

Dr. Robert Abbe has found that pigmentea moles, melanotic growths and giantcell sarcoma, like epitheliomata of the eyelids, face and body, are particularly susceptable to the curative action of radium as a specific. He ranks radium, not with caustics, cautery, antiseptics or medication, but with specifics.

Dr. Abbe in relating his experience with radium, said that it had a powerful and seemingly beneficial effect upon cases of recurrent carcinoma. The agent had been used in cases of Lupus, superficial sarcomas, etc. Radium has an extraordinary power for inhibiting the growth of malignant cells in some cases.

Dr. Robert Abbe recently read a paper before the Practioners' Society in New York on "Radium as a Specific in Giant Cell Sarcoma." He gave a detailed treatment of eleven cases of cancerous tumors of unusual characteristics. They all were apparantly cured. Some of the patients

*Read before Tri-State Med. Asso., Richmond, Va.' Feb., 1910.

were present at the meeting, and were examined by the physicians present.

I will give the details of one of the eleven cases as reported: (See Medical Record, January 1st, 1910).

"CASE X.—Giant Cell Sarcoma of the Pelvis. A young married lady developed a large, soft bony tumor over the left sacroiliac synchondrosis, invading the sciatic part of the iliac bone. It was much larger than the first when one of our most able surgeons attempted its removal. He curetted some of it away for examination, but was confronted by such profuse hemorrhage that he gave up its removal as impossible, and packed the wound. The growth enlarged, and the patient came under the care of another of our best hospital surgeons. X-rays were given until she became exhausted by toxemia of necrotic tissue in the wound. The diagnosis of spindle cell and giant cell sarcoma having been made, I was asked to try what radium would do as a last hope. There were two deep sinuses into the midst of the tumor, which was about the size of one's closed fist, and into these I placed strongest radium tubes, on three occasions, two hours each.

She improved during the next six months, gained seven pounds and looked better. The growth has shrunken one-third or a half, and is firmer; the walls of the sinuses are now everywhere gritty with bone forming. If I may judge by experience, this improvement bids fair to continue, whether radium is used or not. Yet I think I will give it one more treatment to insure rapid progress, and because the fibrous predominated over the giant cell structure."

In conclusion of this valuable paper Dr. Abbe says:

"This review of a group of cases of one type of malignant cell growth, all showing peculiar, I may say unique, retrograde changes, tending always to return to the normal, gives a demonstration of the efficiency of radium, as clear to the clinical student as a demonstration of Euclid on a classroom blackboard.

"There is no similar record in surgery, as far as I know. It may be supplemented by other remarkable cases in radium literature dealing with sarcomata and epitheliomata. The disappearance of a round cell sarcoma of the eyelid, which I have shown before this society, is a notable one.

"Again, in a remarkable destructive sarcoma of the humerus, where the bone had fractured in the growth, reported by Dr. W. G. Morton, of this city, the skiagraphs show the cure by radium treatment of six weeks. I have recently read a letter from the patient, who uses her arm as well as the sound one for all purposes, washing, ironing, etc., and remains cured after five years."

"My conviction is," says Dr. Abbe, "that every case of myeloid sarcoma should be given treatment by radium before any operation, and that we may expect many cures."

At the Paris Radium Institute it is reported that sixty-four out of eighty-six surface cancers have been cured; that all kinds of cutaneous affections have been cured, and that chronic rheumatism and *tuberculosis* have yielded to radium treatment.

Dr. Turner is reported in the "London Lancet," to have found radium useful in rodent ulcer, angiomas, keloids, cicatrices and fibrous contractions, warty growths, simple ulcers, malignant growths and pruritus. He reported illustrative cases.

Dr. S. G Tracy said that with a tube containing 25 milligrams of pure radium bromide of 1,000,000 radioactivity, he could impregnate one pint of salt solution every 24 to 48 hours. He used a teaspoonful of this solution three times a day for stomach troubles.

Dr. Morton was one of the first physicians in the United States to adopt radium as a therapeutic agent, and he is still a firm believer in its efficacy in selected cases. In some cases he uses both x-rays and radium rays, and in some one or the other. In comparing the radium ray with the x-ray he says: "The advantage of radium over the x-ray is that it can be applied direct to the part affected. For example, if placed in a small tube it may be inserted in the throat and, in a similar way, it may be applied to any vital region. In other words, we shall be able to get at the seat of diseases. There is no end, in my opinion, to the cases which may be effected in one way or another."

Beck reports the uses of radium in the treatment of nose, throat and ear diseases. In case of a primary tuberculosis of the septums, 33 applications of radium bromide were made, each lasting from five minutes to half an hour, given at first every day, later three times a week. The headaches and pains disappeared after the second treatment. after abut six treatments the man looked better and did not bleed so easily on touch. After twelve treatments the patient was able to breathe better, and since then there has been a continued improvement and diminution in the size of the growth. A case of nasal syphilis was treated internally with the result that there was a relief from pain and a correction of

the odor. In a case of sarcoma of the nose, the radium gave relief from pain and produced sleep. Very satisfactory results were obtained in a case of sycosis. A case of lingua nigra was cured by seven exposures. In a case of chronic suppuration of the middle ear with necrosis, the odor was markedly modified and the discharge lessened. Pains in the ear were less marked. In a number of other painful conditions Beck has found the radium to afford more or less relief from the pain.

Baunstein has benefitted a number of cases of cancer by the injection of a radioactive water or the insertion of radioactive bismuth. He makes radioactive bismuth powder by placing radium bromide, in substance or in solution, in a jar with some bismuth, and leaving them in contact from three to five days.

"The action of the emanations," he explains, "seems to be that the cancer cells are primarily and directly devitalized and are then absorbed."

A committee appointed by the Vienna Academy of Sciences to investigate the results of the treatment of cancer with radium, says "The Popular Science Monthly, reports, "that in nine cases in which the treatment was used abatement in the cancerous swelling resulted, and in two of the cases the swelling had not appeared after five months' time. A case of cancer of the palate was much improved by the treatment. * * * Numerous other cases of the beneficial results of the radium treatment have been reported.' "

In this very favorable report to the success of radium treatment, the committee interjects the sentence, "The use or radium is not recomended when an operation is practicable."

The fascination of surgery is strong, and the gleam of steel outshines the glow of radium. I confess my weakness for the *glow* of *radium*, and recommend its use even when an operation is practicable.

Dr. Morton was one of the first physicians in the United States to adopt radium as a therepeutic agent, and he is still a firm believer in its efficacy in selected cases. In some cases he uses both x-rays and radium rays, and in some one or the other.

In a paper read before the Harvard Medical Society, January 7, 1905, he gives the radiation treatment a big boost. The following is an extract: "It is not a little curious that the very diseases amenable in greater or less degree to radiation treatment are those hitherto least amenable to treatment. Such are some forms and stages of sarcoma and carcinoma, lupus, tuberculosis glands, eczema, psoriasis, keloid, hypertricrosi, acne, favas, herpes tonsurans, leukemia, amebic dysentery, alopecia arata, and chronic blepharitis."

"Another most important field of usefulness, and one not much as yet touched upon, is the treatment of diseases of malnutrition, in which cases the radiation is used in its stimulating quality, just as it may be used to make the hair grow rather than to cause it to fall out."

In the same paper, he makes a strong plea for what he designates "Preoperative Radiations," in surgical cases.

Dr. Lowenthal of Braunschwig, in an address before the Berlin Society for Internal Medicine, called attention to the distinction between the external and internal action of radium. For external application the radium salts are used, and for the internal treatment the emanation, a gas absorbable by liquids. At this meeting Dr. Friedlander reported the success in skin diseases from the former clinic of Lassar: Chancroids that had been treated unsuccessfully with the x-ray healed completely under the radium. It was also possible to cure many cases of nevus vasculosus which had withstood the x ray and other treatment. Dr. Fleischman reported that he had applied radium emanation in arthrites in the first medical clinic and had repeatedly observed a favorable action. That radium has a certain activity in respiratory diseases has been shown by the fact, in an experiment by Brieger, that in tuberculosis the temperature rises often after inhaling the emanation, in proportion to the severity of the disease to the extent of 3.2 F.

Davidson is reported to have employed radium bromide in tuberculosis of the skin, in rodent ulcer and rodent cancer of the nose with decided improvement and arrest of the disease. He says it is fairly clear that radium produces profound changes in rodent cancer, and that the absorption of the altered products leads to the blush that so often followed.

Your essayist predicted the therepeutic possibilities of radium on its chemical and physiological action, and first used it in a case of rodent ulcer. This was before any report of its employment by others in the treatment of any disease by American doctors had come to my knowledge.

While at Monteagle, Tennessee, as resident physician for the Southern Chatauqua, a gentleman from Chattanooga, my home city, consulted me about an ulcer on the bottom of his heel, which was deep almost to the bone. His family physician had cured it by local applications, but it had come back and was as bad as ever, he said. I treated it by the usual methods until it was healed. The next season he returned and the trouble was as bad as

before, and I cured it the second time. The next summer he came again and the deep ulcer had returned the third time. I then decided to try radium on it. He said he was willing for me to try anything. I used five milligrams of radium bromide 300,000 activity. The glass tube containing it was inserted into a hole made in a cork, and the cork driven into an improvised piece of lead gas pipe open at one end, but closed by a tightly fitting lead stopper when not in use. This was my own invention. "Necessity is the mother of invention." I applied the rays every day about half an hour, and was delighted to observe that the healing process was beginning at the bottom and slowly progressing toward the top. It reached the surface, new skin formed and the cure was complete! There was no recurrence the next year, and there has not been a trace of it since.

My experience is limited, as I have not been in the general practice for a number of years. I have been seccessful in the treatment of epithelioma of the lip. I have also treated successfully epithelioma in one side of the pharynx and affecting the tonsil faucial arch and uvula on that side. When I began the treatment of the case, (a machinist) he had quit work and given up to die, having been told by a surgeon and x-rayist that he had but two weeks to live. So great was the pain in swallowing that he could not drink a spoonful of warm water or soup without suffering. He had become very emaciated and miserable. He had done no work for four months before I began the radium treatment. He has returned to his work, can eat what he desires and drink freely of cold water, ice water *ad libitum*. There have appeared recently two tumors on the neck outside, opposite the site of the growth in the throat, and I am now applying ten milligrams of radium twice a week. To facilitate devitalization and absorption I have determined to use Abbe's method of punching a hole in the tumor and inserting a radium tube.

The new medical craze is the treatment of chronic diseases by injection of sea-water into the muscles. The sea-water is obtained in sterile condition from considerable depths of the sea, and at a distance from land. The treatment originated in France, and the preparation of these various "*marine sera*" seems at present to be confined to that country. They are put up by a number of French chemical firms in sealed glass half-liter tubes. It is my opinion that the therapeutic properties of this so called "*marine sera*", like those of many celebrated Healing Springs, reside in the radium which they contain. This is not a far-fetched theory, as it has been estimated that twenty thousand tons of radium exist disolved in the waters of the seas and that a million tons of radium is contained in the sediments which are deposited over the floor of the ocean. I would recommend as an efficient substitute for the "*marine sera*", a solution of salt and radium emanation in pure sterilized water.

The uses of radium in surgery besides those suggested in what I have stated in the body of this paper are briefly as follows: Where surgery is indicated, but the diseased structure is inoperable on account of its inacessibility, and tumors the removal of which might be attended with dangerous or fatal hemorrhage. The excision of malignant tumors is recommended in which the cells have been devitalized by radium but the processes of absorption are very slow.

Sir Fredrick Treves is reported to have cured the perityphlitis from which King Edward was suffering by the use of radium, when it had been decided that a surgical operation was imperative.

Dr. Morton advises preoperative radiation in cancer cases to clear up of cancer cells oll the outlying territory up to the tumor itself. He also advocates what he always practiced, the employment of x and radium radiations thoroughly, say six weeks to two months before operation and after operation about the same period of of time. He says, "In this way we avoid the Scilla of soiling the wound and the Charybdis of failure to remove the tumor."

I have read all the literature available on the chemistry, physiology and therapy of radiam. I have given you the opinions and experiences of a number of the advanced thinkers and practitioners in this and other countries, supplemented by my own limited experience.

We know that there exists an anti-radium party among the physicians and surgeons.

Dr. Abbe, in reply to the question by Dr. Charles L. Dana why the x-ray men now disapproved of the use of radium, said that he thought they had given it up because they had neither studied its action carefully, nor had been able to secure a sufficient amount of the substance to obtain definite results.

The more I study radium physically, chemically, physiologically, and therapeutically, the more I am convinced of the wide range of its possibilities in medicine and surgery.

Radium, like all new remedies is on trial, but it is rapidly winning favor with those who use it.

So marvellous has been the success of radium as a therepeutic agent, that radium institutes will be shortly established for the treatment of the multitudes in Vienna, Paris, London and New York. The one in London will be under the sponsorship of King Edward, but capitalized by Sir Ernest Carvel and Lord Iveah.

The establishment of such magnificent and munificent institutions is no mean tribute to radium as a therepeutic success.

The subject is too large, I have only given you a brief summary of some of the Uses of Radium in Medicine and Surgery.

In conclusion, let us be reminded that radium posesses destructive as well as curatiue properties, and requires skillful caution in its employment.

Treatment of Early Syphilis.—Coates (*British Medical Jonrnal.*) says that in a large majority of cases when judged on lines that apply to other diseases, syphilis is curable, and it is unnecessarily cruel to teach otherwise. Sometimes cases occur that resist treatment; and others which are apparently immune for years, suddenly break out in symptom. The syphilitic virus sometimes assails a constitution with an idiosyncrasy favorable to its development and multiplication; it is difficult to cure. Though by far the larger number of patients with syphilis, if seen early and treated properly remain well to all intents and purposes, but the longer the treatment is delayed the more difficult and protracted is the recovery. When after treatment no return of symptoms occurs, and if subsequently the patient marries and brings up a healthy family, a cure surely may be assumed. For a long time it has been taught that a person suffering from syphilis is immune from a second attack; but as in scarlet fever or measels so also in syphilis one attack may be followed by a second. It is not impossible, however, to see a second attack in a patient cured of a former. The existence of an indurated sore in a person who has had syphilis is not, however, in itself alone evidence of a second attack: and this discloses a very interesting clinical phenomenon. Chancres not infrequently relapse, thus indicating, though not always, that treatment is not carried out. These recurrences are always in the site of the original sore. A small gumma in the corona, and an ulceration over a local lymphatic inflammation on the penis, may also resemble a primary sore. Strange to say, a primary sore may also recur while a patient is actually under treatment It is now generally accepted that the *Spirochœta pallida* is the cause of syphilis. Though a diagnosis can be made, and treatment begun in many cases of primary syphilis, it is equally important to withhold internal treatment in any case of doubt. Hopeless confusion and loss of prestige to the surgeon and injury to the patient follow a contrary course, yet how often a foolish and half hearted treatment is adopted. As to treatment the writer says that mercury remains our sheet anchor. Its continuous administration in small doses over a long period—never less than two years—has in ordinary cases given the best results, namely, small doses of gray powder by the mouth given over a long period, supplemented by opium, iron, quinine, arsenic and potassium iodide. The effects of the intramuscular treatment in intractable cases are intenser. Of the arylarsonates and their combination with mercury he is rather sceptical: but the aufhor says that the mercury atoxylate has a wonderful immediate effect on intractable symptoms.

Operative and X-Ray Treatment of Uterine Haemorrhages and Myomata.—Kronig and Gauss (*Muchener Mediziuische Wochenschrift*) say that the x-ray treatment is indicated in myomata and hæmorrhagic metropathies in which the radical operation is associated with a disproportionately great danger to life, such as cases of great anæmin, degeneration of the cardiac muscle, marked adiposity, and bronchial catarrh, and that in the future such cases will be treated in that manner exclusively. They further say that a percentage of mortality from four to six is to high in a disease which is not immediately threatening to to life though it certainly does greatly reduce the working capacity. When these cases that are unsuited for operative treatment are excluded the radical operation will become a satisfactorily safe procedure, with a mortality of not over one or two per cent. In strong individuals the operative treatment is the procedure of choice, because in such patients it is very safe and because the after effects, when the ovaries are left behind, are less decided than those when amennorrhœa has been attained through irradiation with the x-rays. Under these conditions the operation is indicated the more the lower the social condition of the patient, as the working capacity needs to be restored as quickly as possiole.

"Paraldehyd" possesses many of the good without the evil qualities of chloral. Used in Insomnia resulting from various causes. The objectionable taste of the chemical is, to a great extent, disguised in Robinson's Elixir Paraldehyd (see page XVI), which is an elegant preparation.

Charlotte Medical Journal

Published Monthly.

EDWARD C. REGISTER, M. D., EDITOR

CHARLOTTE, N. C.

THE DOCTOR'S ORDERS.

When the doctor is called to visit a patient there is usually reason to leave some certain directions regarding the care of the patient. These may relate to the administration of medicines, to a matter of diet, a change of dressing or perhaps to the general care and comfort of the patient. The physician wants certain things done but merely issuing the orders does not mean that they will be carried out, even though a trained nurse be in charge of the patient for you * * * * * * * and every family cannot afford the luxury of a graduate nurse no matter how serious the case. The usual person to whom directions must be given and on whom the carrying out process will most depend will be the mother or wife of the patient. Just bear in mind that this amateur nurse is willing and anxious to do her best but that her best may be of little or no value to the patient if your orders have been given in such a way that she does not fully understand them. The reverse is also true if she does fully understand them. Remember that she is not a hospital gradute and that your medical English may be as incomprehensible to her as Esperanto is and would be to you now. Not only don't use fancy terms in directing what you want done for or given to your patient but choose the simplest possible words in giving these instructions. And what is also extremely important to your patient is that the person to whom you are giving your instructions knows how to carry them out after they understand them. When you order for instance an alcohol sponge bath for your patient just be sure that the nurse knows what you mean by an alcohol sponge bath and how it is to be given. Otherwise harm is liable to come to your patient from it rather than the expected benefit. Don't say to your nurse see that the patient voids his urine or has an operation of the bowels. Be explicit. State what you want done in case one or the other or both of these things don't take place in a stated time. In matters of diet don't talk in a general way about what the patient can have. If you want the patient to have only a light diet state this fact and also what you include in such a diet. Don't leave it to chance or your nurse's ideas. Opinions as to what is a light diet are very apt to differ materially and perhaps to the detriment of your patient. Leave absolutely nothing to chance and possible misunderstanding. Know how to do yourself properly the things you order done for your patients and don't think it above you "to take off your coat" and deign to show your nurse how you want things done in case the one in charge of the nursing end of the case needs to be shown. The best explanation of how to do something is not one of many long drawn out words but of actual demonstration. If there is a possibility of any crisis arising suddenly or unexpectedly in any given case don't say to your nurse "if such a thing occurs you know what to do" but give plain, definite and explicit instructions what you want done if the crisis arises, and see to it personally before you leave the house that the necessary things are at hand to combat the crises with should it become necessary to do so. If they should not happen to be there for use when they were wanted your able directions would not be of very much value to the patient.

In giving orders to either a trained nurse or the family member who is acting in a nurse's capacity it is better to write everything down in simple plain language, concisely put, and not trust to the memory of anyone. Besides it protects you against possible trouble. If you have written a thing down and it is not carried out the claim cannot be made that you gave no such instructions. It might save you from having a malpractice suit on your hands sometime Insist that the nurse do the same so far as her reports to you are concerned. This refers to the trained or amateur nurse. Insist upon her writing down everything she does or gives to the patient and the time at which it was done or given. The same rule also applies to anything noticed regarding the patients actions or condition. It must be written down at once and in detail. Then when you come you will receive full information as to what has taken place in your absence instead of just what happens to be remembered on the spur of the moment at the time you came in. In this latter method many important things that you should know are usually forgotten while you are at the patient's bedside and remembered just after you have left and therefore you are left in total ignorance of them when had you known of them your treatment might have been materially changed * * * and for the good of the patient. Don't be careless in the giving of orders yourself and do not permit carelessness on the part of those charged with the carrying out of them.

THE BABY PACIFIER.

Is there any greater disease breeder or cause of gastrointestinal disturbances in children than the so-called baby pacifier? If there is won't you please advise us because in our present state of belief we are positive in our decision to give the first prize in this regard to the filthy baby pacifier, and would like to have our ignorance enlightened in case we are mistaken. However we are not inclined to believe you can take the decision away from the pacifier. They are well named pacifiers as many cases can prove, because many babies who have used them will cry no more because through disease contracted by their use they have cried their last and will never again have to be quieted in this world. It is the weeping and bereaved parents who need to be quieted and comforted now as they gaze on the little mounds in the old green churchyards where their little darlings lie in their last long sleep. Many a little grave should be marked with a tombstone on which is carved "murdered by the ignorance of those who put into my mouth a pacifier"; or "pacified at last by a baby pacifier". And strange as it may seem many doctors not only do not stop the use of a pacifier where they see one being used but are actually guilty of ordering the use of such vile things to help keep a baby quiet. Don't be that kind of a doctor. Help do all you can to decrease infant mortality, not to increase it. Every baby has a right to cry sometimes and as a matter of fact every baby should cry some every day up to a certain age when it can exercise its faculties in other ways. During the night a properly trained baby does not cry unless there is cause for it. Even during the day the average baby does not cry over-much unless there is something the matter with it and sticking a dirty pacifier into its mouth may quiet it for a few minutes but will not correct what is really wrong with it but will assist very materially in upsetting its digestion or aggravating any gastro-intestinal disturbance that may be present. As a germ carrier the baby pacifier has no equal. It falls on the dirty street or dirtier floor and in many cases is put right back into the baby's mouth with all the freshly accumulated filth without any attempt being made to clean it at all. Or it may be wiped off on some part of the clothing of the parent or nurse or on an already soiled handkerchief, all of which proceedings adds to its value as a disease breeder many, many times. Another very favorite way of cleaning them as the writer has had the misfortune of seeing a great many times is to put them in the mouth of some older person who supposedly cleanses them off by a tongue licking after which thoroughly hygienic procedure they are immediately transferred to the mouth of the receptive baby. It is almost impossible to conceeive of such downright "piggishness" but seeing is believing. Yet as was stated above doctors are actually guilty of the disgrace of advising them in many cases. Some doctors attempt to excuse their ordering of them on the ground that they make teething easier for the baby. The writer is inclined to think it would be more in accord with the facts of the case to say that the pacifiers are ordered because they increase practice for the doctors and also in many cases add to the income of the undertaker. They certainly do not make teething any easier for the baby. If you have been permitting the use of these abominations in your practice let this awaken your thinking powers and you will allow them no longer.

Remember that the best baby pacifier known is the very simple expedient of making and keeping your baby comfortable. A baby who gets enough to eat, gets enough sleep and who is kept dry and clean in comfortable clothes with no pins sticking him anywhere, will be so busy crowing in his joy of living that he will have no time for fretting and irritability, It is your unwell or neglected baby that looks for any such artificial, imitation sort of comfort or solace as is given by a pacifier.

And that baby needs attention of another kind other than that false temporary quieting down induced by sticking a dirty bit of rubber into its mouth for it to suck on. Oh! yes many babies who have had pacifiers survived and grew up seemingly as strong and healthy as babies whose doctors were wise and sensible enough not to hazard the lives of their little charges. But what about those who didn't? Ask the sorrowing parents who mourn the loss of their little "sunshines of the household." What about the doctors who did and still allow their patients to stick these "infant destroyers" into the mouths of their helpless babies? We are rather ashamed to admit that in this age of scientific medicine and knowledge of bacteriology that still such medical (?) men can be found but it is our not vain hope that pretty soon they will be as scarce as the proverbial "hen's teeth." Should you be one of these won't you please give ths subject the serious thought it deserves. If you do you will not only stop the use of them in your practice but will wonder why you ever allowed yourself to be guilty of using them.

OLEI RICINI.

One of the most valuable drugs in our therapeutic armatorium is well prepared good old fashioned simple castor oil and in the hands of the physician who knows when and how to use it, the results obtained from its use are a little short of marvelous. Many only think of castor oil as a cathartic which after exhibiting its aparient effects tends to constipate. Yet in proper sized doses it can be used to produce constipation without first showing any cathartic action. A knowledge of this is very important for use in certain gastro-intestinal conditions occuring not only in children but in adults as well. Where a good cleaning out of the gastro-intestinal tract is required or desired we have nothing so good for use as a good sized dose of simple castor oil. It is in the proper dosage eliminative, cleansing, soothing and healing. Given in time in many instances it will abort what would have been serious illnesses. Because of its after constipating effects it is not indicated in cases of chronic constipation as a curative measure but in patients who suffer from this condition and allow themselves to go several days without the proper action of the bowels, occasional big doses of castor oil are of great benefit because of its thorough effect in cleaning out the gastro-intestinol tract. In the chronic stages of certain diseases where the danger of absorpsion from any intestinal fermentation would have serious results on the condition of the patient, occasional doses of a large amount of castor oil are certainly good therapeutics even though the daily operation of the bowels is fairly regular. While a good cathartic it is to be remembered that from four to six hours is the time required for it to act, and therefore where prompt action is called for it cannot be used, but might be given to further the eliminative work of the more speedy acting cathartic. One of the main objections to the use of this really valuable therapeutic agents is its smell and taste. Both are certainly bad enough and are intensified in the minds of many by having had constant tales of the disagreeable odor and taste told to them. Therefore to use it with the majority of patients the physician must know how to administer it so as to overcome the patient's aversion to it. This can be done very nicely if you only know how. There are many ways of doing it and the one you use must be somewhat decided by the likes and dislikes of your patient and also the age. Of course it can be administered in capsule form but this is not a really good way of giving it because of the number of capsules one has to take to get the required size dose into the stomach and in the case of small children capsules are impracticable. Some add to the dose to be taken an equal amount of glycerine, others a few drops of the oil of cinnamon or the oil of wintergreen with or without the glycerine, and still others put the oil in between layers of pure orange juice and this latter is certainly a very good way. Another method in use puts the castor oil in sarsaparilla or beer. One physician advises his patients to eat a few peppermint lozenges before and after taking the oil claiming that this prevents not only any bad after taste but any attempt on the part of the stomach to expel it after it is down. A very good method which is supposed to have originated in Arabia, is the following: Put the required dose of oil into a glass of milk and warm. stirring the mixture frexuently. In a few minutes an emulsion is formed. which may be rendered very palatable by the addition of a little orange peel syrup. Another use of castor oil which is much in vogue is as a protective, soothing dressing for wounds of both the derma and mucous membranes. It is often used in conjunction with balsam of Peru for this purpose and is very effective. If you make a study of castor oil you will increase its use in your practive. For many purposes it has no equal. It should always be gotten however from a reliable source for poor oil can give poisonous effects of no mean account.

SCURVY.

In a vague way every physician knows what scurvy is and yet if asked to describe it as to its symptoms, etc., his answer would be somewhat hazy. It is the same with cases of scurvy in his practice. He is somewhat hazy in recognizing scurvey when a case presents itself. He is reliable to remember at times of having read of a disease that afflicted sailors on long voyages, in the past, called scurvy but as to having a patient walk into his office, or rather be carried into his office suffering from this disease is something he does not think of. To suggest it seems like rank nonsense to him. Why should cases of scurvy exist on land? And we echo his question asked in surprise and astonishment when informed that such cases do exist. The answering echo to the question is simple enough and is that the average physician does not understand enough about the proper feeding of artificially fed infants and also of young children. Yes such cases do exist we repeat, and often go unrecognized until the sufferer from scurvy has been forced to endure a good deal unecessary pain while the physician in attendance is working out the diagnosis.

Yet the diagnosis of scurvy is easy to the man who remembers his lesson on scurvy at his Alma Mater, and delay in making a diagnosis is absolutely inexcusable in a man who has never seen a case. Scurvy in adults on land is rare and in fact it is even rare among sailors at sea owing to the rigid shipping laws that have been passed by the various nations for the protection of seamen against this condition, for after all it is really more a condition than a disease. Scurvy among children however while not exactly a common condition is very far from rare. Prompt diagnosis of the condition is unfortunately also rare. Not so much because it is hard to diagnose but because one does not think of it as readily as of the measles or "summer complaint." Yet is there any other condition of childhood in which the child is so well content to lie quiet and to be let severely alone? It tries to avoid the slightest unecessary movement especially of the lower extremities. It cries with fright and anxiety when approached for fear it is going to be handled. When handled, and this refers particularly to the lower extremities, its screams of agony are pitiful. The mother or nurse will tell you the child dreads the putting on or taking off of its stockings or shoes; drawers or diapers. Of course it will not walk, crawl or kick as it formerly did. In fact from a bright active happy child it has become or is becoming gradually an apathetic, anemic, fretful and inactive child. Seemingly its greatest ambition in life is to avoid having to move its legs or having anyone move them. This particular symptom is liable to be the first one to be noticed and should make the physician who sees the child at that time and hears this history suspicions of the proper diagnosis. If it doesn't he will say probably rheumatism and dose the baby with salicylates. As salicylates do not cure scurvy the baby will get worse. A further examination of the child will then complete the picture of scurvey for him if he will make an examination. The gums, particularly over the upper central incisors, will be found to have become swollen and of a deep purplish color, "the so-called blue-gum line of scurvy." He will also find that the gums feel spongy and bleed very easily. Localized swellings around the ankles and knees will also be present. Pressure on the bones will be painful. The child has become fretful and irritable during the day and is very restless and wakeful at night, It is losing weight and may have developed a gastro-enteritis. Other symptoms may be present but those already mentioned are the most important ones. Your cure in this disease is a specific one. You will order it from the fruit store and not from the druggist. Your patient will readily take the cure for rarely, if ever, does a child refuse the juice of a nice ripe sweet orange and this is the medicine "par excellence" for the acute stage of scurvy. If it cannot be obtained other fruit juices may be used such as lime juice or peach, but use fresh orange juice if you can get it. In conjunction with your medication correct the faulty diet that was responsible for the condition, unless you want a repetition of the trouble. Probably you do not and we are positive that the child does not, so in correcting your diet do not neglect to provide for a daily continuance of some fruit juice, preferably orange, or fresh vegetable. In your selection be guided of course by the age of your patient.

HYGIENE OF THE SLEEPING ROOM.

Between the extremes of "fresh air crank" and "catch cold crank" there is a sensible moderation and in no place perhaps is this simple moderation more necessary than in our sleeping rooms. The hygiene of the sleeping room however involves more than just the freshness of air in the room. It involves the location of it, the furnishing of it, the airiness of it, whether it be light or dark and the size of it in relation to the number of people who occupy it. As the proper hygiene of the sleeping room is a part of preventive medicine it is within our province to discuss it. In fact a good many naturally healthy human beings have their normal resisting power rendered vulnerable to the invading hosts of disease by sleeping rooms medically unfit for habitation, This statement not only refers to the houses of the poor but to those of the wealthier classes as well. Many diseases really gain their foothold in our bodies while we sleep. Ignorance of the proper hygiene of the sleeping room is one of the causes for poor sleeping rooms and neglect on the part of the doctor to discuss these things with his patients and to seek to correct the errors that he sees is another, In the first place the sleeping rooms of our houses should be the best rooms, however as a rule they are the worst because company don't see them whereas for the reason that company does see them the best rooms are usually given over to the parlor and sitting room. The sleeping room if possible should be large, light and airy with plenty of windows on every side, This latter arrangement allows of fresh air at all times, without the discomfort of having everything blowing about, no matter in which direction the wind happens to be blowing. If the room is to be occupied by more than one the proper ratio

of cubic feet of air space for each occupant of the room should be looked for. Each occupant should sleep alone and the beds should not be close together. Folding beds are not as desirable as others for obvious reasons. A tendency to curvature of the spine will be prevented by having a good firm bed spring and over that a fairly firm mattress. Washable blankets are the only coverings that conform to the rules of hygiene. Comforters, feather or cotton filled, are most glorious germ holders, and are mentioned mostly to be absolutely condemed. Beside the sheet covering the mattress, it is cleanly and therefore more healthy if another sheet is used between the night dress and the bed coverings. Iron beds are more healthy than wooden beds because they can be kept cleaner. The floor covering of the sleeping room should be on the style of a rug so that it can be taken up frequently and thoroughly cleaned in the open air. The floor should be of such a finish that it cnn be scrubbed several times a month with some good antiseptic solution and should be wiped up daily with a damp cloth. A damp cloth is used because dirt will cling to it whereas with a dry cloth dirt would be merely brushed from one spot to another and into the air of the room. The hangings of the room should be as few as possible as they are merely ornamental germ gatherers. Such as are used should be of washable materials. Soiled clothes should never be kept in the room while waiting for wash day to come around. If it is found necessary to keep partable toilet conveniences in the room at night they should always be of the covered variety and when not in actual use they should be kept covered. Food should never be kept in the sleeping room, nor eaten there except in cases of sickness where the patient is confined to the bed. A sleeping room is not necessairly to be considered as well aired besause it is could. Impure air can also be cold. On the other hand it is not necessary to have everything in the room blowing about as in a gale to properly air the room.

EDITORIAL NEWS ITEMS.

At a meeting of the board of trustees of Wake Forest College, Wake Forest, N. C., held on September the 11th., Dr. W. T. Carstarphen. of Kitrell, N. C.. was chosen as professor of physiology in the department of medicine of that institution.

Dr. Carstarphen graduated in medicine from Jefferson Medical College Philadelphia, Pa., in 1906 and we feel confident that he will be a valuable addition to the medical faculty of Wake Forest College.

The Mobile Medical College, Mobile, Ala., opened its forty-fifth annual session on September the 20th, four days being devoted to the examination of applicants for entrance. The opening ceremonies were brief. President Abercrombie, of the University of Alabama, of which the Mobile College is the medical branch delivered an address to the student body. Dean Goode, Professor Moody and other members of the faculty also made talks to the students.

Dr. J. D. Long, Assistant Surgeon General of the United States, reports that there have been fifty cases of pellagra in Columbus, Ga., during the year 1910.

The Pike County Medical Association met in Zebulon, Ga., September the 10th., and was largely attended by the physicians of the county.

The following officers were elected: Dr. J. M. Anderson, of Barnesville, President; Dr. W. H. Aycock, of Molena, Vice-President;Dr. M. M. Head, of Zebulon, Secretary.

Deaths.

Dr. J. R. Sewell, quite a prominent physician of Atlanta, Ga.,was shot and instantly killed on September the 20th., by William Cox, of Austell, Ga., who was a patient of the doctor's.

Dr. Sewell graduated from the Southern Medical College, Atlanta, Ga., in 1888. He has been very successful as a practitioner, and is well known to a large majority of the peopleof Georgia, having always lived in that state.

Dr. Richard K. Gregory, of Greensboro, N. C., died at his home on September the 10th. He was seventy-four years of age and a man who was highly esteemed by all who knew him.

Dr. Gregory lived in Drewry's Bluff, Va., until after the Civil War, when he moved to Greensboro, and has been engaged in the practice of his profession there every since.

He graduated in medicine from the University of New York in 1860.

Dr. Stuart Arthur Ashton, a prominent young physician of Colonial Beach, Va., died at the Garfield Hospital, Washington, D. C., September the 8th., of paralysis. He was twenty-five years of age.

Just three years ago he graduated in medicine from the University College of Medicine, Richmond, Va. He had met with unusual success as a young practitioner of medicine, and we feel that in his death the medical profession of the South has lost a young physician of great value.

Book Notices.

By Henry Gray, F. R. S., late lecturer on Anatomy at St. George's Hospital, London. New (18th) edition, thoroughly revised, by Edward Anthony Spitzka, M. D., Professor of Anatomy in the Jefferson Medical College of Philadelphia. Imperial octavo, 1496 pages, with 1208 large and elaborate engravings. Price, with illustrations in colors, cloth, $6.00 net; leather, $7.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1910.

The announcement of a new edition of Gray's Anatomy interests every one concerned with medicine, student and practitioner alike, for it deals with the only science entering into every medical question Henry Gray was a two-fold genius, as he combined a thorough knowledge of human structure with equal insight as a teacher. Neither of these qualities singly could have produced a book in which matter and method were so perfectly welded into an ideal teaching instrument. Gray's inventive mind devised the scheme of engraving the names of the parts directly on them, so that the eye caught at a glance and photographed on the mind their nomenclature, position, extent and relations, the four cardinal points. His work marked an immense advance over its competitors, and sprang at once to the forefront, where it has remained ever since more than half a century.

This new edition, the eighteenth, is the most thorough of all revisions, every line having been scrutinized for possible improvement, anything in the nature of an obscurity being clarified, and whole passages rewritten. The changes have been so thorougoing that the book has been entirely reset in new type. The latest developments in this active science are included, so that this single volume gives a complete account of human structure according to the latest views. The Editor, Dr. E. A. Spitzka, is Professor of Anatomy in the Jefferson Medical College of Philadelphia, and one of the world's foremost anatomists. He is also a competent artist, and the drawings from his hand convey his own accurate knowledge directly to the mind of the student. Many of the former engravings have been replaced and more added, so that the series of illustrations is more abundant than ever before. This applies also to the use of colors. Nothing has been spared to maintain the reputation of the book as being the easiest from which to teach or to learn, and as facilitating to the utmost the acquisition and retention of a sound knowledge of its subject.

Vaccine Therapy its History and Practice. By R. W. Allen, M. D., B. S. (London) Late Clinical Pathlogist to the Mount Vernon Hospital for Diseases of the Chest, Late Pathalogist to the Royal Eye Hospital, Late Gull Student of Pathology, Guy's Hospital. Third edition. Philadelphia; P. Blakiston's Son & Co., 1012 Walnut Street, 1910.

The fact that the third edition of this little volume has been called for so soon, speaks for itself the value of the book.

This edition has been completely rewritten and brought up to date. The attempt has been made so to render available the experience of the past five years by the inclusion of illustrative cases so as to enable the general practitioner to approach with confidence a case requiring therapeutical immernization.

The book is attractively bound, carefully indexed and the printing and illustrations are excellent.

The price of this book is $2.00.

A Manual of Hygiene and Sanitation. By Seneca Egbert, A. M. M. D., Professor of Hygiene and Dean of the Medico-Chirurgical College of Philadelphia; Member of the Academy of Natural Sciences of Philadelphia; Member of the American Medical Association, etc., etc. Fifth edition, enlarged and thoroughly revised, illustrated with 97 engravings; Lea & Febiger, Philadelphia and New York, 1910.

This, another revision of this book, has involved certain changes statement, some rewriting, and the addition of a few pages of entirely new matter, the purpose being to bring the contents strictly up-to-date and to make the book, even more than heretofore, a trustworthy manual of the essentials of the science.

The science of hygiene has become so extensive that many volumes might be devoted to the discussion of its principles and the details of their application. In this work, it has been the author's endeavor to cover the essentials with exceeding the limits of a convenient size. He has undoubtedly succeeded in this effort.

The book is very attractiue in its appearance. The illustrations and the printing

in this book are exceedingly good, and the index seems to be quite complete.

We recommend this work to the profession without hesitation.

Practical Nursing for Male Nurses in the R. A. M. C., and Other Forces. By Major E. M. Hassard, R. A. M. C., and A. R. Hassard, London: Henry Frowde, Oxford University Press, Hodder & Staughton; Warwick Square, E. C., 1910.

This volume, though small, is full of helpful hints for nurses, and every trained nurse should read it.

The book contains 339 pages of carefully indexed reading matter, with several charts etc., included.

We take great pleasure in recommending this work to the nursing profession.

A Manual of Obstetrics. By A. F. A. King, M. D., Professor of Obstetrics and Diseases of Women in the Medical Department of the George Washington University, Washington, D. C., and in the Medical Department of the University of Vermont, etc. Eleventh edition, enlarged and thoroughly revised. 12mo., 713 pages, 341 illustrations and three colored plases. Cloth, $2.75, net. Lea & Febiger, Philadelphia and New York, 1910.

The rapid passage of Professor King's Manual of Obstetrics to an eleventh edition, stamps the volume as possessing in high degree the essentials repuired in a work of this kind.

The original aim of the author has in this revision been judiciously maintained. Brevity and lucidity of statement mark its pages without sacrifice of completeness, and as a text-book for the elementary student or work of reference for the overbusy practitioner, it will continue to enjoy its well merited reputation.

Among the more important additions may be mentioned the subjects of pubiotomy, spontaneous version by posture and the factor of thigh-pressure upon the abdomen considered as one of the auxiliary forces of labor. The section on hyperemesis has been rewritten and the illustrations have been increased by the addition of thirty-seven new figures.

We take greae pleasure in recommending this book, which is neatly bound, and thoroughly illustrated, to the medical profession, and also to the medical student.

The Pathology of Prostatic Enlargement.—Paul, in the London Lancet, discusses the various theories offered in explanation of the pathology of prostatic enlargement and traces the analogy between the involutional changes met with in the female breast at the climacteric period and those changes occurring in prostatic enlargement and summarizes as follows:

(1) The accepted theories as to the cause of prostatic hypertrophy all fail because each can apply only to a limited number of cases. (2) The prostate and the breast are both controlled by their respective dominant sexual glands and respond to their influence in a similar way in health and disease. (3) Both organs are subject to a disturbing influence at the climateric period, which may, and frequently does, result in a hypertrophic change. (4.) In such change the microscopical appearances in the two organs show a remarkable resemblance in all the essential details. (5) Prostatic hypertrophy, like the mammary involution hypertrophy, occurs only at the climacteric period, whereas there is no known neoplasm which is so strictly limited to any age period. For these reasons the writer believes that prostatic hypertrophy is not due to a chronic inflammation of septic or specific type nor to a neoplasm, but that it is an involution change similar in character to that with which we are familiar in the mammary gland.

Abstracts of the Leading articles of the month.

The Value of Celluloid in Certain Surgical Procedures.—Thompson, in an article in the British Medical Journal, says that he thinks the suitability of celluloid for certain surgical procedures has been overlooked. The writer employs the celluloid in sheet form as used by photographers for glazing prints. The author tells of an instance where, after removing the appendix, he inserted between the internal and external oblique muscles a perforated celluloid plate to cure a commencing ventral hernia. Examination six months later showed that the plate had undergone little if any absorption. In a case of inguinal hernia he used two plates one over the other placed in the inguinal canal the cord being passed down a linear cut in the plates to a central ring for its reception so that it passed from the internal ring straight through these barriers and lay on the anterior surface for the rest of its course. In a third case celluloid was successfully used for bridging the gap of a trephine hole. The piece of material was cut to fit the hole firmly and had a small aparture for drainage. Celluloid could be used to replace bone after trephining operations with great advantage in many ways in suit-

able cases, and perhaps it might be used in plastic operations on the nose to form a rigid bases for the formation of a new nose.

Epilepsy.—Turner says in an article recently published in the London Lancet that there is no single specific remedy in the treatment of epilepsy, although the alkaline salts of bromin come nearest to this definition. But the influence of the bromids on epileptic convulsions is variable and uncertain. In the first place, bromid medication may arrest the seizures immediately, or within a short period of their administration, temporarily or permanently. Second, the bromids may induce a lessening in the severity and frequency of the seizures. Third, the bromids may exert no influence at all on the disease, or may even augment the frequency or severity of the seizures. Under the influence of the salts of bromin a considerable number of cases of epilepsy are temporarily "cured" or materially improved. Bromid treatment should be commenced at the earliest possible time after the onset of the fits. If benefit does not follow a daily dose of from 45 to 75 grains of one or a combination of the bromid salts, some other remedy or method of treatment should be sought for and applied. Turner holds that the large doses sometimes prescribed—from 100 to 150 grains daily—although no dobut suppressing the seizures for a time, induce other and more serious phenomena.

Of the combinations of the bromids with other remedies the writer found Gelineau's formula the most useful and satisfactory. It is prescribed in the form of dragees, containing 1 gram of potassium bromid, 1-3 milligram of picrotoxin, and ½ milligram of the arseniate of antimony. The author used the dragees in all forms of epilepsy with considerable success. The method of prescribing them is simple: One dragee to be taken either during or immediately after a meal thrice daily for a week, an additional dragee being added weekly until the patient is taking 4, 5 or 6 per diem. Turner has found 6 dragees a day usually sufficient to hold the fits in check, although according to Gelineau as many as 10 or 12 may be taken daily. In patients with confirmed epilepsy with mental deterioration the use of bromids is of relatively little value. Their continued administration in these cases does, however, produce a diminution in the number, and perhaps in the severity, of the seizures.

Surgical Treatment of Gastroptosis.—Eve, in the British Medical Journal, tells of 11 cases of gastropexy recently operated on by himself, 2 patients were relieved of their symptoms while in the hospital. One patient was quite well 12 months after the operation, but must be excluded because calculi were removed from the common bile duct at the same time that gastropexy was performed, and the author believes that the symptoms were probably largely due to cholelithias. Another patient became melancholic shortly after the operation, was sent to an asylum, and has since been lost sight of. Of the remaining 7 cases, 6 were completely cured; 3 of them reported themselves between 1 and 4 years after operation, and 3 between 3 and 9 months after operation, and 3 between 3 and 9 months after operation. The other patient, operated on 13 years ago, was a neurasthenic, 32 years of age. She was quite well for sometime after the operation, but returned to the hospital at the end of a year owing to occasional vomiting and return of pain; but her symptoms entirely subsided while she was in tde hospital, and she was able to take ordinary food. Before the operation, the iodopin reaction was obtained in three hours, and 12 months after the operation in one hour and a half, indicating that the motility of the stomach had improved.

Seven cases were treated by gastrojejunostomy. In 3 of them there was dilatation of the stomach in addition to gastroptosis, and 2 of these had also hematemesis. In three other cases hematemesis was a conspicuous symptom. Three of the patients were definitely neurasthenics, but gastrojejunostomy was performed, because in one case there was distinct dilatation and in the two other, incessant vomiting with hematemesis. Of the 7 patients 4 were cured; of these 2 reported themselves 20 months and 7 years, respectively, after the operation, and 2 patients, 8 and 3 months, respectively. The three remaining patients were slightly improved. None of the patients with hematemesis had any recurrence. In fact, the writer has not yet seen recurrence of hematemesis after gastrojejunostomy. The stoma of the gastrojejunostomy probably acts as a safety valve and prevents the distention of the stomach by flatulence, which is one of the causes of the hemorrhage.

The two patients treated by Duret's method were improved at first, but ultimately relapsed more or less completely. In one of them gastropexy was subsequently performed with excellent results. This author concludes that an operation on Beyea's plan, slightly modeged, is indicated in the majority of cases of gastropexy which are not amenable to medical treatment. Gastrojejunostomy should be avoided, but may be necessary in certain cases of gastroptosis with dilatation and atony, and when hematemesis is present.

Alcohol Disinfection of Hands.—According to Schumburg (Deutsche Medizinische Wochenschrift) washing the hands with strong alcohol is a most effective means of removing all infection and rendering any bacteria innocuous. He states that 200 c.cm. of alcohol applied with a pledget of cottonwool are sufficient to disinfect the hands to the extent of 99 per cent. or more of all bacteria present. Ordinary methylated spirit is quite effective. From experiments in the medical department of the Prussian Ministry of War it appears that washing with soap and water combined with even prolonged scrubbing with a brush does not remove the microbes, the soap softening the skin and making the bacteria more adherent. Alcohol, on the other hand, by hardening the skin, causes the bacteria to become rapidly detached. To secure proper disinfection with alcohol the preliminary use of soap and water must be dispensed with, the reasons given being that the residual moisture, even after drying, dilutes the alcohol, and further that the softening of the skin by water causes it to contract too strongly when the alcohol is applied, and by rendering it rough and scaly encourages the transference of bacteria from the surgeon's hands to the wound. Inasmuch, however, as the wearing of gloves for operations has been now so generally adopted, disinfection of the hands has not the same importance that it once possessed for the success of aseptic surgery.

The Tuberculous Gland.—Philip, in The London Medical Lancet, urges physicians to watch for the earliest indication of spreading involvement of lymphatic glands in young children. Especially have regard to distribution downward from the extratonsillar gland into the supraclavicular triangle, and regard such process as almost certainly of tuberculous nature. If in doubt make use of the tuberculin test (cutaneous or percutaneous). Treat as soon as may be with tuberculin, while at the same time carefully cleansing the throat and correcting the child's faulty environment. If incidentally one or other gland suppurates, evacuate in simple fashion, continuing the use of tuberculin. There is ample reason for the statement that if such procedure is followed the glandular disturbance will commonly yield, grosser deformity will become rare, and, what is vastly more important, the risk of the spread of tuberculous infection to internal organs will be greatly lessened.

The Appendix in Gynaecological Operations.—Weisswange (Medizinische Klinik) advises that when the abdomen has been opened to perform a gynæcological operation it is best to remove the appendix, unless entirely obliterated, as a precaution against a future attack of appendicitis. The author further says that this indication is clear to all when the appendix can be seen to be diseased, but that when it appears healthy macroscopically it is impossible to say that more or less serious changes are not present, that he believes chronic constipation to be the cause of most attacks of appendicitis, that the majority of men and women have appendicitis at some time during their lives, and that the removal of an apparently healthy appendix when opportunity offers is a proper prophylactic precaution.

Acute Anterior Poliomyelitis.—Green (Intercol. Med. Jour. of Austral.) gives details of two fatal cases of this disease during an epidemic at Bendigo. In a boy, aged five years, the disease commenced with symptoms of intense meningitis; after the fall of temperature there was gradual extension of paralysis involving the intercostal muscles. In a baby aged six months there occurred in the seventh day dulness of the right lung with tubular sounds of the upper third, indicating either an invasion by the same organism or a secondary infection. Death occurred on the day following the lung infection. In this case there was a gradual extension of the paralysis after the disease appeared to be at an end.

Bacteriological Examination of the Cerebro-Spinal Fluid—Four specimens of the cerebro-spinal fluid were obtained from this case. When withdrawn the fluid looked quite clear, but, after standing a little while, grayish sediment collected which, on microscopical examination, proved to consist of lymphocytes. After centrifugalizing the fluid, a further examination showed that these deposits consisted entirely of mononuclear cells, and that there were no polymorphonuclear leucocytes to be seen, and, in this respect, the writer points out that their results resemble those obtained by Geirsvold in 12 cases taken from an epidemic of acute poliomyelitis which occurred in Norway in 1906.

In most of the cover-glass preparations, made from the two earlier specimens of fluid, a few widely scattered diplococci could be distinguished. In a few instances two pairs were grouped as tetrads. There was some indication of a capsule, but this was not so distinct as it was with the diplococci which were found in the cerebro-spinal fluid of rabbits.

The diplococci were always found free in the fluid; no intracellular forms occurred. No culture of this diplococcus on artificial media could be obtained; media of every

description were inoculated with the fluid, and incubated both aerobically and anaerobically, but in no instance was growth of any kind obtained.

Rabbits were inoculated intracranially with the fluid and, in three instances, the diplococcus was found in the cerebro-spinal fluid on the 22nd, 50th, and 53rd days after injection and, in two of these instances, the rabbits became partially paralyzed on the 52nd and 49th days after inoculation. Unfortunately no complete histological examination of the cords of these paralyzed rabbits was made.

In summing up the evidence concerning the infective nature of acute poliomyelitis, these authors consider that Geirsvold's investigations show that a specific disease exists of which acute poliomyelitis is a frequent and prominent, though not essential, feature, and they consider that the instance they have recorded represents a sporadic case of the disease of which Geirvold observed an epidemic.

They do not, however, consider that there is sufficient evidence to assume that acute poliomyelitis is always the result of a particular diplococcus infection, but rather lean to the view that the symptoms may be produced by toxins of various natures, and, in support of this, they quote Trevelyan's observations on cases which followed immediately on such different infections as those of measles, typhoid fever, and acute rheumatic fever.

Chloroform Anaesthesia.—The ultimate conclusions, as regards doses, of the British Medical Association have been published. They are, that a one per cent, vapor is generally insufficient to induce surgical anæsthesia in an adult, at all events within the limits of time ordinarily available; that a two per cent, vapor of chloroform in air is sufficient to induce full surgical anæsthesia; that in pathlogical conditions. such as poor blood conditions. some diathese, and grave pathlogical states, the safety dose or percentage in below two and must be determined in each case; that the dose for the maintenance of anæsthesia is of as much importance as that of the induction period, and that the failure to recognize this has caused many deaths, and constantly delays convalescence, and that while no definite limit of safety can be fixed for this dose, it is in most cases one per cent, at first, and must be lowered as time goes on,—Glasgow Medical Journal, 1910.

Foreign Bodies in the Heart.—Zesas, in an article published in Fortschritte der medizin, Leipsic, reports 118 cases of foreign bodies in the heart which he has found on record. In 54 cases the foreign body was a needle, in 38 a bullet, but the list includes also nails, a thorn, a gold plate, an iron peg, splinter of wood or bone and a hairpin. The astonishing tolerance of the heart for a foreign body loose in its interior is demonstrated anew by some of the cases. Pointed objects, however, generally work into the heart wall and cause such disturbances that an attempt to remove them is justified and the list shows that this has been done in many cases. In 12 cases the foreign body had evidently reached the heart from the alimentary canal, in four through the blood vessels, and in one from the air passages. In only 96 had the projectile or other foreign body been propelled through the chest wall.

Intermittent Limp.—Muskat, in Therapie der Gegenwart, Berlin, states that the disturbance known as intermittent limp is not limping—no attempt is made to walk while the attack lasts—and he adds another to the already long list of descriptive terms that have been proposed for it. In differentiating the condition it is important to exclude disturbances due to flat-foot, sciatica and articular rheumatism, and also the angiospasm liable to accompany flat-foot. Ortner has observed similar angiospasms in the intestines which he ascribed to use of tobacco, as excessive smoking brought on the spasms and abstention from tobacco abolished them, while they recurred on resumption of tobacco. Nicotine seems to act on the vasomotors and it may lead to pathologic changes in the arteries, especially the changes which entail intermittent limp. The Roentgen rays may reveal calcification of the arteries with the loss of the pulse in the foot, but even in these cases much benefit may be derived from light massage, the iodids, warm baths, the high frequency current and four-celled electric baths, with scrupulous avoidance of further injurious influences, nicotine, alcohol, worry, mental or physical overexertion, chilling, etc. These measures may arrest the process and ward off impending gangrene and a cure may follow unless the calcification of the arteries has progressed too far. The changes in the artery generally begin at the toes and work upward. Payr has reported a case in which gangrene was averted by implanting the femoral artery in the femoral vein.

Functional and Anatomical Alterations of the Liver in Children.—Brun and Bougioannini (*Ach. de. med. des enf.*) say that it has been demonstrated that the liver opposes a powerful defense against tuberculous infection; the action of the vascular endothelium and the hepatic cells on the pathogenic microorganisms is known and

there is a remarkable delay of the action of poisons on the organism when introduced into the blood. The bacilli of tuberculosis penetrate more easily into the lymphatic vessels of the intestinal muscosa of children than of the adult. Hepatic lesions vary from cellular swelling to fatty or amyloid degeneration, cirrhosis, and acute yellow atrophy; yet these lesions are not evidenced during life by any noticeable symptoms. One of the commonest forms of cirrhosis in children is that produced by tuberculosis. The toxins alone cause a mild degeneration of the hepatic cells; living tubercle bacilli cause the production of a typical granuloma and inflammatory new formation in the connective-tissue framework of the organ. The variety of alterations depends on the intensity of the infection, the condition of the organs, and the hereditary conditions of the patient.

Pridary Febrile Herpes.—Bruno discusses the probality of the occurrence of herpes accompanied by fever as a primary disease, apart from the presence of another infection. He concludes that there is a true primary, febrile herpes, and that is not very rare, but is often confounded with herpes zoster and symptomatic herpes. He gives the history of such a case observed by himself in the person of a man twenty-four years of age, who was attacked suddenly with chills, fever, and delirium, and after two days developed a cutaneous eruption of herpes vesicles, arranged in groups along the course of the trigeminus. He had ocular disturbances also. If this disease is not the result of some specific microorganism it is probably due to an intoxication and endogenous origin; perhaps to toxins generated by the habitual inhabitants of the intestine, which for the time have become more virulent than usual. The diagnosis is easy after the eruption appears.—*Annali di Medicina Navale e Coloniale.*

Clinical Anaphylaxis.—Lesne defines anaphylaxis as the sensitization of an animal to an organic substance by injections of the substance. Later injections will then cause a reaction of the nature of fever, gastrointestinal symptoms, urticaria, etc. Anaphylaxis may be obtained to bacterial toxins, and to any material that is an albumose, or that resembles them in composition. Eggs albumin, milk, oysters, clams, mushrooms, and other vegetable substances cause poisonous symptoms as a result of anaphylaxis. Some persons are not at all subject to anaphylaxis, while others are. The author thinks that in susceptible persons there is a profound alteration of the mucosa of the stomach. The symptoms are sudden intoxication, abdominal pains, vomiting, constipation, or diarrhoea, lowered arterial tension with collapse, and skin symptoms. Cyclic vomiting in children is of this nature.—*Annales de Medecine et Chirurgie Infantiles.*

After-results of Abdominal Operations.—Giles (*Jour. Obst. Gyn. Brit. Emp.*) states that, speaking generally, operations for the removal of the appendages of one side have no detrimental effect on the general health, the cases where ill health could be traced to the operation numbering not more than 5 per cent.* About 90 per cent. of cases were actually better after the operation than they were before. The relief of symptoms is well-marked after these operations; about 87 per cent. of patients were free from pain afterward or experienced less pain than before the operation, whilst a further 5 per cent. were free from pain for a time but developed pain later from other causes. Dyspareunia, dysmenorrhagia, and leucorrheo were relieved in a number of cases. The removal of the appendages of one side was followed by irregularity, diminution or cessation of menstruation in a small number of cases (eight); and in six cases there followed a diminution of the sex instinct. The chances of the disease developing in the remaining ovary and tube are not very great; such a recurrence took place in about 10 per cent. of cases. Consequently, in view of the definite value of the remaining ovary and tube, it is always worth while preserving them when they appear to be healthy. Soiling of the peritoneal cavity with the contents of an ovarin cyst favors the occurrence of later disease and therefore the interests of the patients are safeguarded by the removal of these cysts (however large) intact, without tapping. The remaining tube and ovary have a considerable value from the point of view of subsequent pregnancy; thirty-three patients, or 25 per cent. of the married women under forty, became pregnant. Of these, nineteen had full-time deliveries (some repeated), five had miscarriages, and seven had extrauterine pregnancy, while two were pregnant when seen. It would appear that after the removal of appendages of one side there is a greater liability to the occurance of extrauterine pregnancy than is the case with normal women. A study of the sex of these children in relation to the side on which the remaning or active ovary was situated definitely refutes the theory that the right ovaries produce boys and left

*The author bases his remarks and conclusions upon 1000 consecutive abdominal operations on the pelvic organs.

ovaries produce girls; it shows clearly that there is no relation between the side from which the ovum is derived and the sex of the child.

Treatment of Postoperative Hernia of the Abdomen.—Pitha (*Ann. de gyn. et d'obsi.*,) states that perfect adaptation of the fasciæ and the different layers of the abdominal wall is of the utmost importance in maintaining the resistance of the cicatrix. The simple suture was pronounced against at the international Congress of Gynecology at Geneva. The union of each layer of the abdominal wall seperately was advocated as the best method of prevention of abdominal hernia. The material to be employed has also been a question for a long time. Silk tends to the establishment of stitch abscesses, making a less solid cicatrix. Many authors advocate catgut as the most easily absorbed material and one whose resistance lasts sufficiently long. At the clinic of Pawlik at Prague for the past twenty years the abdomen has been sutured in three planes: catgut for the peritoneum, the same for the skin with seperate stitches, a set of ligatures for the fascia. Union by first intention is most important; the development of a hematoma in the wound, suppuration of the wound, inexact coaptation, relaxation of the sutures in the fasciæ, necrosis of the fasciæ, incomplete closure of the wound, extraperitoneal fixation of the pedicle, fixation in the wound of cysts after complete extirpation, drainage of the abdominal cavity with rubber drains, drainage after Miculicz, curetting of the walls or uterus, peritoneal tuberculosis, rapid return of ascites, incessant cough, getting up too soon, severe work soon after operation, pregnancy, and other causes bring about the stretching of the cicatrix. The lower part of the abdominal wall is most frequently affected. Since a careful adaptation of the muscles and fasciæ has been customary, the number and size of herniæ has diminished. Complete succes of an abdominal operation cannot be guaranteed because of the unknown factors that may enter into the healing process. In operating for hernia the opening of the peritoneum is an element of danger as great as that of the abdominal cavity. To obtain union by first intention the author advocates every attempt to remove and prevent clots, irregularity of the wound, and to eliminate the necessity of drainage. Pawlik, according to the writer, excises the cicatrix, making a lenticular incision on each side, opens the hernial sac preferably in the upper part of the wound, returns to the abdomen the prolapsed intestines, clamps and removes the adherent and degenerated portions of the omentum, closes the layers of the peritoneum, after removing the cicatricial porton, and sutures it in points with catgut. This method of operation is new in that it does not extirvate the hernial sac, which is resected only in the thinned portion, the larger part remaining *in situ*. This constitutes a method of support for the intestines. This method produces no hemorrhage; the adaptation of the layers is perfect and no subcutaneous diverticula are left in place.

Enlarged Superficial Lymph Glands with Pulmonary Tuberculosis.— Zebrow- (*Deulsche Medizinische Wachenschrift*) reports enlarged glands on the side of the chest in 186 out of 929 patients with unmistakable tuberculous lesions in the lungs or pleura, or in 20 per cent. The writer also found the enlarged glands in 2.58 per cent. of 1,629 patients without manifest signs of tuberculosis. In 14 in this latter group with enlarged glands the skin and conjunctiva tuberculin tests elicited a positive response, and these tests were not applied in the other 28 patients in this group. Nothing pathologic could be discovered by casual examination in 11 in this group. The enlarged glands were found along the middle axillary line of a little inward from this, along the long thoracic artery. In 12 of the 228 patients presenting these enlarged glands, they could be distinctly traced along the line of the pulsating vessel when looked at from the side, generally at about the fourth interspace and mostly on the right side. In one case the discovery of the enlarged glands first suggested possible tuberculosis of the lungs. and the glands subsided to normal size as the tuberculous process healed under treatment. The author also discusses the anatomic conditions responsible for involvement of these glands in the pathologic process beyond.

Continuous Current of Oxygen in Treatment of Abdominal Disease.— Weiss and Seucert (*Revue de Chirurgie, Paris.*) discuss the value and the mode of action of the application of a constant stream of oxygen in the treatment of surgical abdominal affections. The hundreds of cases in which the method has been applied abundantly confirm the advantages of this method; which is based on the biologic properties of oxygen, the results of experimental research and histologic examination demonstrating that in the presence of microbes the oxygen promotes the diapedesis of white corpuscles, augments their phagocytic properties, and stimulates the vitality of the reparative elements. They have applied the method in gaseous gangrene, suppurating arthritis, p u r u l e n t,

pleurisy, diffuse phlegmon and osteomyelitis and chronic suppuration with compound fractures—the results were always good but it was after operations that it proved most beneficial The authors review their experience in detail, reiterating that oxygen injected into the abdominal cavity has an important stimulating action on the cardiovascular and respiratory system; it prevents the formation of adhesions, induces hyperemia and promotes healing, and in case of intraabdominal septic effusions, arrests absorption of septic fluids. Its curative action is enhanced if it is transformed *in situ* into ozone by Roetgen-ray exposures. The oxygen is introduced in a continuous flow through a buttonhole in the anterior abdominal wall and it flows out through various drains, the cavity thus being continually flushed by the gas. It forces out along with it pus and serous effusion, aiding materially in the draining and cleansing of the cavity.

Merycism.—Lindsay (*Glasgow Medical Journal*) reports a case of a patient aged 56, had regurgitated and remasticated his food since he was a child. He began his working life as a baker, and was the fourth generation of his family to follow that occupation. The author thinks that the hurried meals and irregular hours attaching to the work of a baker in the country may have had something to do with the habit; but the patient admits that it had begun while he was still a boy at school. Haste in eating is, however, associated with regurgitation; for the solid portions of a meal that has been imperfectly masticated usually return to the mouth, sometimes half an hour, sometimes three or four hours after being first swallowed: The regurgitation is altogether involuntary, and when his appetite is poor it may not occur for a week at a time. It is not preceded by any feeling of discomfort or other evidence of indigestion. The remastication is pleasurable, the food, he says, being softer and sweeter than when first taken.

Albumin Reaction in Sputum.—Roger and Valensi say, in an article recently published in Press Medicale, that sputum from the tuberculous always contains more or less albumin, while a mild, simple bronchitis or pulmonary emphysema does not add this albuminous element to the sputum. Its presence indicates a deeper inflammation or exudation. The absence of albumin thus permits tuberculosis to be excluded; its presence has less decisive value as there are a number of processes that may cause albumin to appear in the sputum. They relate experiences to show the simplicity and ease of the albumin sputum test. The sputum is collected in a dry recipient, as free from saliva as possible, never using sputum containing blood. The sputum must be fresh, as decomposition splits the mucin and liberates albumin. It is mixed with an equal amount of water, stirred and a few drops of acetic acid added to coagulate the mucus. The mixture is then filtered through ordinary filtering paper and heated to coagulate the albumin; a little sea salt has to be added to ensure the coagulation of the albumin in the absence of electrolytes; other means can be used to test for the presence of albumin. In 64 cases of tuberculosis and in 29 reported by Oddo the findings were almost invariably positive. This was particularly important in 31 cases in which the diagnosis was wavering and the finding of albumin the sputum aided in differentiating the disease; the diagnosis was confirmed by the course of the case later. In one case the test was negative as also the tuberculin test until a large dose of tuberculin was given when there was a febrile reaction and albumin was found in the sputum, but as soon as the reaction has subsided all the findings were negative again and the patient has been in good health since. This case demonstrates the value of the albumin reaction, as negative findings, even with tuberculous infection, show that the process has been arrested.

Chronic Bronchitis in Children.—Allan in the London Practitioner says that in the treatment of persistent chronic bronchitis the first point is that the causative factor must be determined and if possible remedied. Remove enlarged tonsils and adenoids. Mouth breathing in any case is a direct menace to the child's health, and in the tuberculous will tend to aggravate the constitutional condition. Nasal obstruction from whatever cause should be at once treated. As soon as possible after the operation the child should begin to carry out respiratory exercises, to reestablish breathing through the nose. The child's dietetic regime should be carefully investigated, and in necessary cases a suitable dietary should be drawn up. The fault may lie in habitual overfeeding or in wrong feedding. All cases will be benefited by a modified diet, and in cases secondary to chronic indigestion it should be strictly enforced. In general terms the reduction of the carbohydrate intake and the interdiction of sweet things are the important factors in modifying the diet.

The author prescribes a diet similar to that advised by Dr. Robert Hutchinson in chronic dyspepsia in children. The following should be avoided: Starchy puddings,

such as rice, sago, tapioca, arrowroot, and cornflour sweets, sweet cakes, sweet fruits, jam, honey, marmalade, potatoes, turnips, carrots, etc. The diet should consist chiefly of stale bread, dry toast with butter drippings, eggs in any form, beef, mutton, fish, chicken, bacon, tongue, green vegetables in moderation, custard, plain puddings, stewed prunes, figs, etc. The child should be trained to eat only at meal times and should not be given anything between meals. Tea, coffee and stimulants should be prohibited. In the absence of definite gastric symptoms, Allan relaxes the restrictions somewhat, allowing more carbohydrate food, and a little weak tea, but forbidding sweet things as far as possible. General hygienic measures are of primary importance. These children should be in the open air as much as possible. The rooms which they inhabit should have good ventilation, and the window in the sleeping apartment should be kept open night and day. The clothing should be of such material as to afford sufficient warmth without being to heavy. Outdoor sports, in the absence of any cardiac disability, are to be recommended. Cold sponging is invaluable. A change of residence is often beneficial. With regard to medicinal treatment, general tonics should be prescribed. The cough under certain circumstances may call for treatment, but it is often found that under this general tonic treatment, improvement as regards this symptom takes place.

Operative Treatment of Jacksonian Epilepsy.—Finsterer (*Beitrage zur Klinischen Chirurgie*) states that he introduced a piece of hernial sac under the dura to prevent the latter's growing to the pia and brain below. This was done at a second operation, the first having been done to remove a splinter of bone, and the second to correct the adhesion of the dura to the brain. Hacker has been using for a long time pieces of hernial sac, obtained at a herniotomy on another patient, as an effectual means for preventing the growing together of tissues in operations on tendons and nerves, and experiments on animals have confirmed the advantages of this material for use under the dura. The results have been followed for a year or more in some of the experiments. In conclusion the author reports a second case in which the subdural implantation of a piece of hernial sac has also put an end to the disturbances to date; it was done at the fourth operation in this case, the implantation of a celluloid plate not having arrested the convulsions for more than a year.

Nature and Treatment of Hysteria.—Romberg (*Deutsche Medizinische Wocheuschrift.*) tells of hysteria as a congenital morbid disturbance in the course of associations; in hysterical anesthesia the periphery feels, the spinal cord conducts and the central convolution receives, but the complicated phenomena on the other side of the cortex are lacking. No conscious impression results. If it is possible to restore the association here normal conditions return, and some slight impetus may restore the consciousness which awakes like the sudden remembrance of a word that has momentarily escaped the memory. In children and in persons whose mental development is not much beyond that of childhood, this restoration occurs particularly easily because the physiologic development favors the reception of new associations. Thus the child hangs on the words of the storyteller while it is difficult to fasten the interest of the adult. In treatment it is important to accept the disturbances as real. The writer says it is wrong to exhort patients to exert their will; the aim should be to divert attention from the disturbances. He then says that many cases of hysteria in children are really only the hysteria of the mothers. The author adds further that it is important to seek to train the abnormally functioning associations, especially by light systematically increasing work. This diverts the mind, which pleasure, theaters, etc., fail to accomplish. The measures which cure by a sudden impression are more liable to be effectual with children and persons with uncultivated minds. The after-treatment is extremely important following a cure of this kind, not allowing from any one expressions of surprise or suggestion that the trouble had been due to the lack of will power. The recovered functioning should be promoted by systematic exercise. The main point is to have the physician win the confidence of the patient and avoid everything tending to mysticism, especially hypnosis.

Pulmonary Tuberculosoid.—Neisser and Brauning in the Berliner klinische Wachenschrift, have used the term pulmonary tuberculosoid to express a common condition in which the patients present subjective signs of pulmonary tuberculosis and some susceptibility to tuberculin, unstable temperature but no fever, and tenderness in the region of the bronchial glands, but all these signs gradually subside and the patients remain constantly well. In the 1,900 persons who have passed through the tuberculosis observation station at Breslau in the last ten yerrs, 300 presented this

Gastric Catarrh

with its fermentation, nausea, pain, distress and other disagreeable symptoms, is rapidly and often permanently relieved by the use of

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and this not infrequently when other remedies have proven unavailing. The reason is easily found in the general reconstructive and upbuilding influence of this effective tonic. In other words, it overcomes local conditions not only by directly promoting the functional activity of special organs and tissues, but also through substantially increasing general bodily vitality.

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There is no possibility of poisonous effect through the absorption of Listerine.

Listerine Dermatic Soap is a bland, unirritating and remarkably efficient soap.

The important function which the skin performs in the maintenance of the personal health may easily be impaired by the use of an impure soap, or by one containing insoluble matter which tends to close the pores of the skin, and thus defeats the object of the emunctories; indeed, skin diseases may be induced, and existing disease greatly aggravated by the use of an impure or irritating soap. When it is to be used in cleansing a cutaneous surface affected by disease, it is doubly important that a pure soap be selected, hence Listerine Dermatic Soap will prove an effective adjuvant in the general treatment prescribed for the relief of various cutaneous diseases.

"The Inhibitory Action of Listerine," a 128-page pamphlet descriptive of the antiseptic, and indicating its utility in medical, surgical and dental practice, may be had upon application to the manufacturers, Lambert Pharmacal Co., Saint Louis, Missouri, but the best advertisement of Listerine is . . . . . .

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tuberculosoid condition, and examination from 4 to 10 years later show that the condition is the result of tuberculous infection in a person who is not predisposed to the disease and is thus able to resist general infection. The process remains small and circumscribed, and either heals or passes into a latent phase. If he dies from some intercurrent disease, the findings are those which Naegeli has described. This prelatent stage of pulmonary tuberculosis may itself become chronic, the patients being then classed as anemic or pseudoanemic by their ailing but never really sick state, but their susceptibility to tuberculin and the tenderness of the bronchial glands reveal that they are chronic tuberculosoids. The primary focus is not able to induce actual pulmonary tuberculosis but still keeps its foothold. The importance of this conception is that in these cases the patients did not take any treatment or merely a very insignificant one. If they had been given a course of treatment the recovery or passage into the latent phase would have been ascribed to the treament. In the spontaneously recovering cases the observer might have been tempted to doubt his diagnosis of tuberculosis. Among 90 tuberculosoids examined after several years, 57 were cured or in a latent phase, and in 28 the condition had become chronic although better than at the first examination. Only 2 out of the total 300 tuberculosoids have died, and both succumbed to an intercurrent affection. In conclusion the authors call attention to the peculiar liability of certain occupations to develop this tuberculosoid condition; it was encountered in 38 per cent. of 269 cabinet makers and locksmiths; in 32 per cent. of 68 painters and printers; in 70 per cent. of 47 girls employed in stores, but only in 3.7 per cent. of 325 housemaids and in 2 per cent. of 179 sailors, gardners or roofers, or men otherwise employed ou of doors.

Miscellaneous.

The Manufacture of Antitoxin.

In the treatment of diphtheria the physician of today uses antitoxin as a matter of course. It is his first expedient and his last resort. He believes implicity in its efficacy. But does he understand and appreciate all that is involved in the production of that antitoxin—the scientific knowledge, the skill, the caution, the minutiae of detail? This thought is forced upon the writer through the persusal of a recent publication of Parke, Davis & Co., which deals in part with the subject of antitoxin manufacture.

Here is a specimen chapter:

"In the selection of the horses which are to act as the living laboratories for the production or the antitoxin, we apply not commercial or academic knowledge merely, but, what is more to the point, veterinary skill. The animals must be vigorous and healthy. They are carefully examined, their temperature noted for several days, and the presence of glanders excluded by the delicate mallein test. It is the blood serum of these animals that is to be injected into the patient later on, and no precaution can be regarded as extreme which contributes the slightest positive assurance of its purity.

"Not only must the horses be in good general condition when inoculated; they must be kept so. They are fed, stalled, groomed and exercised for no other purpose than to maintain to the full their self-protective, antitoxin-producing powers. Thirty miles removed from the noise, smoke and dust of the city is our stock farm, equipped with model stables and supervised by expert veterinarians. Here, at Parkedale, on more than three hundred acres of sunny slopes, at an altitude of six hundred feet above the level of the Great Lakes, live the horses which we employ in serum-production. Amid these favorable surroundings they maintain the physicial condition so essential to satisfactory service as serum-producers.

"These are preliminary considerations. Young, healthy, well-kept horses, indispensable as they are, would be of little use in the elaboration of a reliable antitoxin unless the work of injecting them with toxin were conducted accurately, aseptically, systematically, and throughout a period long enough to allow physiological reaction up to the limit of attainable immunization. We have horses enough, so that there is no occasion to be in a hurry with any of them; the exact length of time required for complete reaction is determined in each individual instance by carefully scheduled observations.

"It goes without saying that in the preparation of the toxin and its injection into the horses, as well as in obtaining the blood serum, the most rigid bacteriological technique is maintained. The methods we employ agree substantially with those of Roux, Aronson, and Behring, and are from first to last in charge of experts. The varying susceptibility of different animals, whether guinea pigs or horses, to the diphtheria poison; the more or less rapid physiological reaction: the variation in strength of the antitoxic serum from

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A faithfully prepared, long-tried, uniform preparation.

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different horses; the absolute purity of the finished product—these are all important and delicate questions demanding for their determination a high degree of skill and scientific accuracy of observation. These qualifications, in our judgement, outrank all other considerations in the work of producing a reliable anti-diphtheric serum."

The foregoing has reference to but a single step in the process of serum production, and affords but a hint of the safeguards with which anti-diphtheric serum (P. D. & Co.) is hedged about at every stage of its manufacture—conditions which enable the company to guarantee the purity and potency of its antitoxin.

A Physiologic Binder.

The latest medical concept of ptosis is that of a functional habitus, of which the various organic prolapses, such gastroptosis, enteroptosis, nephroptosis, and the rest are end-results. This broad functional concept gives an added interest and value to those mechanical appliances which, based on physiological principles, seek to correct and hold in check the vicious enteroptotic habit, thus preventing functional compromise of the organs concerned, or, if already compromised, restoring them to a favorable position for functional rehabiliation. The truth is, with the modern scientific physician only that form of binder will survive which measures up to this concept of abdominal ptosis.

It is because the Storm binder has forestalled this concept and fulfills its physiologic demands that it ranks as a prime favorite with both physicians and surgeons—for in post-operative cases, hernia, pregnancy and the like, the underlying principle is the same, and the details of the binder are such as to readily adjust themselves to the several states.

Even in the matter of material the various conditions that one encounters are amply provided for. The linen mesh (the most expensive $10 binder) is firm, close-woven, yet with a "porosknit" effect, and is decidedly the best where it can be borne. But, as every physician knows, there are among these ptotic patients a large percentage of nervous, delicate individuals who can not tolerate the irritation of the linen mesh, and for such the $8 silk binder is just the thing. It must not be forgotten, moreover, that one finds such patients also among the less well to do, whose idiosyncrasies must nevertheless be considered; for these the maker has put up a half-silk binder for $6.00 which meets the situation nicely. Then there is the cheaper $5.00 binder for folks who can not afford more, which has all the essential efficacy of the more expensive makes.

With such physiologic qualities and such a convenient range of accommodation, the Storm binder deserves the popularity it enjoys.

The Influence of Bio-Chemistry in Medicine.

It has long been the conviction of medical scientists that the body contains within itself all the necessary agents to protect itself against disease, and to recuperate its lost strength and vigor, and that only when these agents are, from some cause or other, defective or deficient, do infections gain entrance and diseases lay waste and the body find itself powerless to resist their invasion. Of all these defensive and reconstructive agents, certainly none is more important than the group of substances which compose the tissues of the body themselves, and whose structure and function are classed under the head of bio-chemistry. Defect or deficiency in any of these elements is sure to result in diseased conditions—varying in nature and course according to the bio-chemical elements that are lacking or perveted—and so long as this fundamental state of affairs continues, it is practically impossible for the body to recuperate and reconstruct itself. Whatever other treatment may be indicated in various diseases, it is assuredly desirable to restore this bio-chemical balance, and thus lay the celluslar foundation for such other therapeutic measures as may be used. In most cases—especially of chronic diseases—nothing else is needed than to furnish this bio-chemical demand. This is the principle of the Ensign Remedies—founded upon the tissue elements; not merely the twelve tissue salts, but all that naturally belong to the living organism. Booklets and leaflets, explaining the system, and full of instering information, will be sent upon application to the Ensign Remedies Co., Battle Creek, Mich.

Blood disorders in all forms of blood dyscrasia, as indicated by skin disorders, bad healing power and general debility, Ecthol often proves effective when other treatment fails. It quickly raises the antitoxic and so called opsonic power of the blood, increases the resisting power of the tissues and thus minimizes the dangers of bacterial attack. Healing processes are stimulated, and the whole economy is materially improved in its vital details.

Home Treatment of Tuberculosis.

Not every tubercular patient is able to seek the climate best suited to his condition,

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Indicated in acute and chronic cutaneous diseases, as Eczema, Erythema, Herpe Acne, Burns, Scalds, Pruritus Vulvæ, Pruritus Ani, Itching and Bleeding Hemorrhoids, Erysipelas, Varicose Ulcers, Infantile Scalp Diseases, etc.
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and it becomes necessary for him to make the best of those curative means at his command. After the physician has outlined to him a well ordered mode of living, there then arises the question of an agent that will aid in tissue reconstruction and resistance to the disease process. In choosing his therapeutic means of combatting tuberculosis, the physician takes into consideration two features—the value of the remedy chosen for the purpose and the patient's ability to continue it for a sufficient period to derive results. Quite naturally, he thinks of cod liver oil. But generally cod liver oil products quickly

SAL HEPATICA is especially valuable when there is torpidity of the bowels or intestinal sluggishness arising from organic derangement of the liver, kidneys or central organ of circulation. It is the best agent for the relief of that form of costiveness that is ushered in by an attack of colic and indigestion, and not only clears away the effete and irritating agents lodged in the alimentary tube but eliminates the semi-inspissated bile that, too frequently, induces the so-called "bilious" condition; at the same time an abundant secretion of normal bile is assured, thereby demonstrating its value as a liver stimulant and true cholagogue.

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Moist Heat.

Thermotherapy in inflammatory conditions seems to prove most effective when applied in the form of moist heat.

The relaxation of pressure by infiltrated and swollen tissues upon nerve endings, as experienced by the relief of pain, specifically proves this.

The advantages of moist heat were indicated is generally acknowledged. The method of its application from professional preferment seems to be in the form of Antiphlogistine. By this method, a high temperature can be maintained in contact with the affected part for hours without exposure to the patient for redressing.

The superior advantages of Antiphlogistine over other forms of moist dressings, such as poultices, hot packs, etc., are that it is easily applied, retains its heat for hours, is antiseptic in action, and above all produces satisfactory therapeutic results.

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To reduce fever, quiet pain, and at the same time administer a laxative and tonic is to accomplish a great deal with a single tablet and we would especially call attention to the wide use of Laxative Antikamnia & Quinine Tablets in chronic or semi-chronic diseases which begin with a severe "cold." Among the many diseases and affections which call for such a combination, we might mention la grippe, influenza, coryza, coughs and colds, chills and fever, and malaria with its general discomfort and great debility. Attention is particularly called to the therapeutics of this tablet. One of its ingredients acts especially by increasing intestinal action, and still another by its special power to unload the colon. When the temperature of the body is above normal, conditions are especially favorable for germ development. It is a matter of every day observation that a simple laxative is often sufficient to relieve the most serious complications.—*Archives of Pediatrics.*

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We have given Laxol (castor oil as sweet as honey) a most thorough trial in our institution, and cheerfully say we have never found any laxative and cathartic so effective and so pleasant to take. Children readily take it, and we find it leaves the bowels and stomach in perfect condition. We cheerfully recommend it to all as a very useful article for every household.

Respectfully,
BROTHER BELLARMINUS,
House of the Angel Guardian.

Medical Gynecology.

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Treatment of Placenta Previa.—Hauch (*Monat. f. Geburts. u. Gyn.*) mentions the indications for treatment of placenta previa. The conclusion, given as a result of the births at the Hospital for Women in

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Kopenhagen, is that the best method of treatment is dilatation and compression by the use of the inflated rubber balloon. This is the best method in the interest of the child, although there is some danger of infection. The difficulty of the use of balloon is that on account of the apparatus needed it cannot easily be placed in a private house, and must remain a hospital operation. Delivery by version and extraction after the method of Braxton-Hicks is the best method, and this is applicable in a private house. The use of Cesarean section is not considered proper in placenta previa by the author. His conclusions are based on 240 cases of placenta previa. Twenty-four arrived at the hospital without having bled and with undilated cervix; seven were total placenta previa, with one death, from bleeding for a day before entering the hospital; seventeen were partial placenta previa, with one death from anemia and ruptured cervix. Rupture of the membranes is useful in slight cases only. Thirteen cases were delivered thus. Eighteen deliveries were made by combined version and extraction with no deaths. By balloons 144 cases were treated, with sixteen deaths; sixty were total, eighty-four partial. In 103 cases, after the balloon was used, version and extraction took place. The danger of infection is greater in extraovular than in intraovular introduction of the balloon.

Treatment of Typhoid Fever.—Arnold, in the British Medical Journal, makes the statement that none of the various methods of treatment have hitherto been successful in definitely controlling the course or limiting the duration of typhoid fever. A measure employed at the Civil Hospital, St. Helena, during the past 4 or 6 years, has resulted in a distinct shortening of the average duration of illness, and in a remarkable amelioration of all the symptoms. This particular measure consists in the administration by the bowel of turpentine and olive oil from the first day of treatment, and its regular use at stated intervals until the temperature has been normal for at least ten days. When the case first comes under observation an anema of turpentine 3j and olive oil Oj is given by a funnel and tube, The foot of the bed being well raised, the emulsion is allowed to find its way slowly up the bowel. On the next day, or the day after, the same quantities are repeated. A preliminary thorough cleansing of the bowel by a dose, or preferably small divided doses, of calomel followed by castor oil, prepares the ground for the action of the turpentine.

Kohler's Bone Disease.—Schaffer, in Munchener Medizinische Wachenschrift, relates an extremely brief but concise notice of this affection accompanied by a case-history and two radiographs, Kohler's first case was described as recently as 1908, and but few observations are upon record. Patient, a healthy boy of sound stock, was five years old when the affection began. The patient became listless and depressed, and slept poorly. There was a mild temperature rise. The boy soon began to limp and complain of lancinating pains in the right foot, the dorsum of which was swollen. The pain was present only on walking. The local symptoms were referred to a slight traumatism—the fall of a brick on the foot. Improvement soon followed. but a radiograph showed a lesion of the scaphoid, which was smaller than normal as if sclerotic. No other lesion was present. The patient, although he had ceased to complain, favored his foot in walking; and in the course of several months the calf of the affected side had become somewhat atrophied. There was some swelling over the scaphoid, but no sensitiveness. Perfect rest for the foot was ordered, the patient being either recumbent or supported by crutches. Under rest, Bier's hyperemia, and massage the condition was arrested; and at a later period (two years), the scaphoid had resumed its natural growth, and the functional result was also perfect. Von Pirquet's cutaneous reaction had given a negative result. The diagnosis was Kohler's disease (although Kohler failed to record atrophy of the calf). The mechanism lay between trauma pure and simple and a developmental defect conditioned by traumatism. Kohler attempted to introduce gonorrhea as a causal factor, but in cases since reported this element could be excluded. The few cases thus far recorded are quite insufficient to permit the drawing of any conclusions as to the nature of the affection,

Etiology of Acute Epidemic Paralysis in Children.—Krause and Meinicke say in the Deutsche med. Wochenschrift, that the acute epidemic paralysis of children is a transmissible or or infectious disease. Rabbits were successfully inoculated with the virus obtained from a human exponent of the malady. After the death of the animals infected, their organs were employed in the further infection of healthy rabbits. The negative results obtained by other experimentors are due, in the opinion of these authors to the fact that young rabbits of a certain breed are alone susceptible, requiring, furthermore, a very large inoculative dose, preferably administered by the intraperitoneal or intravenous route rather than the subdural. Continuation of this experi-

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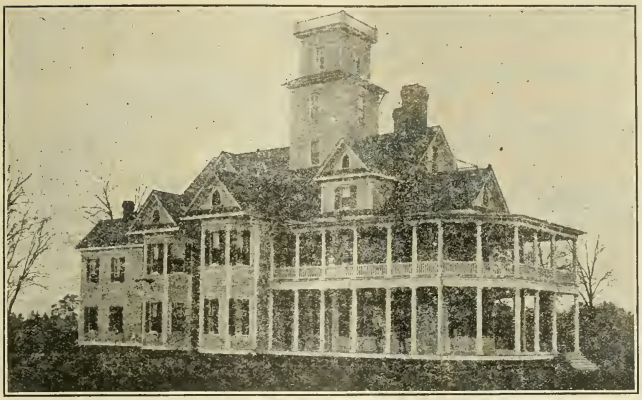

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Resident Surgeon, University Hospital Baltimore, 1906-1907. Ghief of Medical Clinic and First Asst. in Laboratory of Clinical Pathology of University of Maryland. 1907-1910.

mental work also demonstrated that the filtrable virus, both in man and in the infected animal, was present not only in the central nervous system but also in the vertebral fluid, the blood and the parenchymatous organs. Further it is demonstrable in both patient and cadaver.

The Value of Serums and Vaccides in the Treatment of Diseases.—Raw in The British Medical Journal, discusses this question with reference to acquired immunity and then he takes up the anti-streptococcic sera as used in puerperal septicema, erysipelas, malignant endocarditis, acute tonsilits, diphtheria, tetanus, tuberculosis, and then speaks of the use of vaccines from human sources for tuberculosis, pneumonia, staphylococcic infections, Coley's fluid and typhoid fever, He believes that the vaccine treatment of the latter disease, in which Wright was a pioneer, is more a prophylatic than a curative measure. The best results are obtained in staphylococcic infections. The author believes further that vaccines do good in pneumonia, but the evidence is still small. In regard to tuberculin from human sources he has used the T. R. in 110 cases, including tuberculous glands in the neck, tuberculous peritinitis, tuberculous joint, and sinuses, lupus, tuberculous meningitis, and genitorurinary tuberculosis. In the localized forms of the disease, most of which the author believes to be of bovine origin and conveyed to children in infected milk, he is convinced that the T. R. has an excellent effect except in those patients in whom there is some pus encysted in the body, whether in the interior of the joint or in a bone under pressure, or as an abcess in a lymphatic gland. In these cases there is a danger of tuberlin causing dissemination of the bacilli. with a resultant blood stream infection. It is a good rule never to give tuberculin if any pus is localized in the body. In many cases a course of tuberculin has had the effect of greatly reducing enlarged tuberculous

glands of the neck, by dispersing the periadenoid tissue and causing a general freeing and loosening of the glands themselves, while in some the enlarged glands have entirely disappeared. If, however, there is any tendency to suppuration the glands must be opened, and in all cases the pus should be liberated. The writer is convinced that the extensive dissection of glands in the neck is wrong in principle, and sometimes leads to a general tuberculosis which is fatal. In tuberculous peritonitis tuberculin has a splendid effect, and, combined with operation and drainage, many patients have been completely cured. The author further believes that in genitourinary tuberculosis ten or twelve injections of tuberculin have often had an excellent healing effect when everything else has failed.

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This fraud, which was exposed at an action tried before the Supreme Court of Victoria at elbourne, and others reported before in the medical literature show that every physician should see that his patient gets exactly what he prescribed. No "just as good" allowed.

Tubercle Racilli in the Feces.—Philip and Porter (British Medical Journal) have examined 109 different specimens altogether Of these, 99 were from patients suffering from pulmonary tuberculosis, in different stages of the disease. None of the patients had intestinal tuberculosis. The other specimens were from one case of tuberculus peritonitis and from patients without a suspicion of tuberculous infection. Of the 109 patients, only 34 had sputum in which tubercle bacilli had been discovered; 42 had sputum in which no bacilli were found, and 24 had no sputum whatever. Of the 100 tuberculous patients examined, 79 were found to yield tubercle bacilli, and only 21 were negative. Of the 9 specimens from presumably normal subjects none yielded tubercle bacilli. Of the tuberculous patients all of those with bacilli in the expectoration, with one exception, presented tubercle bacilli in the feces. Of the 42 patients in whom bacillary examination of the sputum was negative, 29 gave tubercle bacilli in the feces. Of the 24 without sputum, 17 showed bacilli in the stools.

The authors claim that the occurance of the tubercle bacilli in the feces is independent of the presence of an intestinal lesion. In fact their presence has little reference to abdominal tuberculosis. They were actually absent from the only case of tuberculous peritonitis which was examined. The remarkable frequency of their occurrence in relation to pulmonary tuberculosis, not only in cases in which tubercle bacilli were determinable in the sputum, but also in cases in which either bacilli were absent or there was no sputum whatever, would seem to afford an important addition to their means of diagnosis in doubtful cases of pulmonary tuberculosis.

Treatment of Skin Diseases by Colon Lavation.—Mantle says that there is ample proof that, in some individuals, ingested toxines absorbed in the elementary canal show the chief evidence of that absorption by changes in the skin. The author proposes the following treatment of such cases, which consists in colon lavation: An alkaline sulphur water is generally used both for the intestinal douche and for the immersion bath which follows it. The object of the internal douche is to wash away old fæcal matter and mucus from the colon and to give the mucous membrane an antiseptic dressing. This is done in the following way. A long rubber tube after being sterilized is passed into the sigmoid and is attached to a hydrostatic douche, when from twenty to forty ounces of sulphur water at a temperature of 105° F. pass into the colon at a pressure of two feet, the patient lying first on the right side, then on the back, and lastly on the left side during the operation. This is repeated and the ejecta after each douche are carefully examined and reported upon by a skilled attendant. Antiperistalsis of the colon normally exists, and is an important factor in this treatment, enabling rectal injections to reach the ascending colon and cæcum when diseased. A warm immersion bath of sulphur water follows the internal douche, and when in this bath a hot douche at a higher temperature plays upon the wall of the abdomen under water from a large nozzle with fine perforations, and is chieffly directed over the site of the colon. The immersion bath not only opens out the peripheral circulation, and thus relieves any congestion of the viscera which may exist, but is beneficial to the skin and nervous manifestations the result of autointoxication.

Demonstrations of Tubercle Bacilli in Lesions of Lupus Erythematosus.—Arndt in the Berliner klinische Wochenschrift, refers to the conflict of earlier years on this subject, and incidentally to the failure of bacteriologists to show the presence of Koch's parasite in lesions of this type. Such evidence as exists has been chiefly clinical in character—and refers to the occasional association of erythematous upus with other so-called tuberculous and paratuberculous lesions and to occasional specific reactions. A case may be made out for the tuberculous nature of certain lesions, based wholly on clinical and experimental findings. The writer has devoted the past five years of his activity to this association, apparently because of the numerical frequency of clinical cases of lupus erythematosus in his department of Prof. Lesser's Clinic. The writer has made the best of his opportunities in regard to trial sections; and after certain familiar tests had given negative results investigation by the anti-formin method gave a positive finding. That is to say, smears stained by the Ziehl-Neelsen method show individual or parallel, slender, slightly curved rods, agreeing morphologically as well as tinctorially with tubercle bacilli

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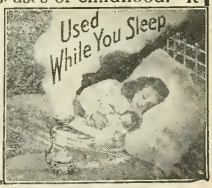

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One case is specially described as free from all other lesions and all antecedents of tuberculosis. Aside from the bacilli present, a very marked cutaneous reaction to tuberculin was in evidence. Attempts to find the bacilli in sections had always proved unsuccessful. The use of the antiformin method may be summed up as follows: An excised piece of tissue was comminuted by rubbing up in a sterile mortor, and dissolved in a 20 per cent. solution of antiformin. This solution was centrifugalized and the sediment smeared on 16 new microscopic slides which had been kept in ether and alcohol. The smears were then fixed in the flame. It does not appear that the author has thus far tested many patients by the antiformin method. But two seem to be mentioned, while no less than 175 were tested by the section-staining process. Nevertheless two positive results on a background of previous constant failure enabled him to predict with considerable confidence that the antiformin method must come into general use in all cases where there is suspicion that a very few bacilli may lurk in the tissues.

The Hypophysis.—Franchini in an article published recently in the Berliner Klinische Wachenschrift believes that the extract of the hypophysis of cattle and

horses causes serious changes in metabolism especially of the inorganic, and in particular produces a great deficit of calcium and magnesium, as well as, to a less degree, of phosphorus. It produced glycosuria in rabbits only exceptionally. Aside from its toxic action on rabbits and guinea pigs the extract of the hypophysis exerts a special influence upon the intestine, causing ulcerations and hæmorrhages, which are due probably in part to changes in the vessels and in part to changes in the trophic nerves. The toxicity is greater when the extract is introduced into the veins, but is present when given subcutaneously or by the mouth; digestion in vitro weakens this toxic action. The anterior lobe divested of its epithelial layer produces only slight symptoms in rabbits even in large doses, symptoms which are fatal when the epithelial layer which covers the posterior lobe is united with the anterior lobe. The isolated posterior lobe acts particularly on the metabolism and the vessels and organs in the abdomen and pelvis. The posterior lobe contains a substance which produces a distinct mydriasis in the eye of a frog, but gives no other reactions of adrenalin. It is not to be found in the isolated anterior lobe, but exists in the epithelial layer, though in much less quantity than in the posterior lobe. The serum of animals that have been treated with injections of the extract of this lobe causes mydriasis, which can only very rarely be produced by the extract of the anterior lobe, though more frequently when the epithelial layer is united with it.

Bovine Tuberculous Mastitis.— Delepine in the London Lancet urges the stamping out of bovine tuberculosis. The author says that the evidence obtained so far shows that bovine tuberculosis is, on an average, more prevalent in districts where stables are generally in a bad state, small or badly ventilated and dirty, and where also it is the usual practice to retain many aged cows on the farms, It is, however, equally clear that there are districts where the farms exhibit all these defects, and yet have remained free from tuberculous mastitis; on the other hand, there are districts in which the farms were free from these defects, and where many cases of tuberculous mastitis have been observed. It does not, therefore kill an infant. Yet such foods are nutritious and digestible in their proper spheres. Fats, sugars, starches, meats and other forms of protein will all produce heat, and all are digestible. If the heat or caloric vaule was all infants or adults needed sood for, it would be immaterial what article of diet was employed. But foods that are of equal heat producing value, and which are also digestible, are not interchangeable for different individuals and growth and tissue repair do not depend upon the storage of heat, but upon the assimilation of protein. In infant feeding, particularly where growth or the storage of protein if the chief phenomenon of nutrition, the main point to be considered is not, will the food supply heat, but, is it capable of causing growth. The amount of food to enable growth to be made cannot be determined by the amount of heat excreted. It is evident that the caloric method is not one that readily lends itself to successful infant feeding, whatever value it may have in the feeding of adults. But for roughly comparing the heat values of mixed diets, which prove to be suitable for the particular case from the digestive standpoint, when the composition and weights of the foods eaten are known, and also to act as a sort of check, the caloric values of the foods may serve a useful purpose.

Modern Methods of Delivery in Contracted Pelves.—Tweedy in the London Lancet, gives his views on the treatment of contracted pelves: He says induction of premature labor is never advisable. Perforation is not permissible unless the child is dead. Turntug should never be employed as a treatment for contracted pelvis, but may still be performed for complications of labor, such as prolapse of the cord when associated with contractions of the first and second degree. In the greater degrees of contraction time should not be wasted in an endeavor to obtain natural delivery. On the other hand, in the lesser degrees ample time should be given the woman to enable her to deliver herself if possible. Eighi or ten hours may be necessary for the molding of the head, and interference should not be considered until there are evidences of fœtal or maternal distress. Once fœtal symptoms of distress are manifested there should be no delay in delivery. Walcher's position should not be forgotten as an aid to fixation of the head. High forceps should never be applied until all arrangements are perfected for an operation to enlarge the pelvis. It is a pity to proceed to the latter expedient until forceps have been tried tentatively. It must be confessed it occasionally accomplishes its purpose under the most unexpected circumstances. Finally, in these, as in all other obstetrical operations, the best results cannot possibly be obtained if rubber gloves are not worn.

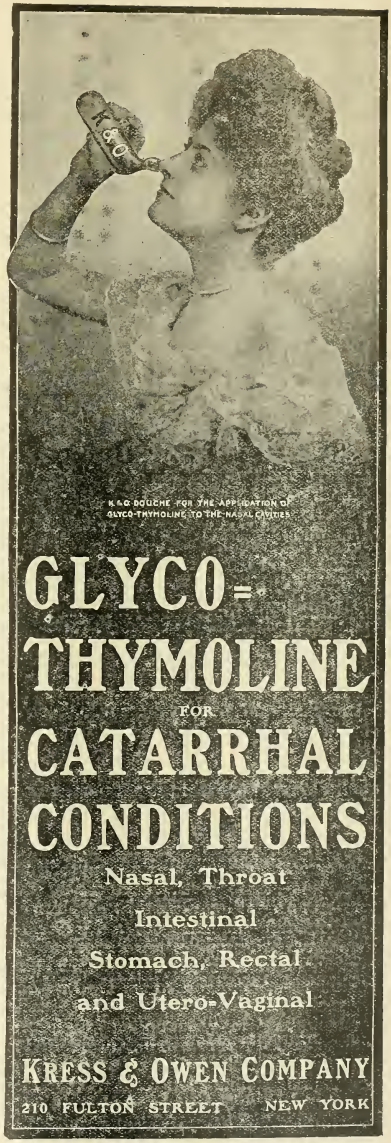
Comparative Benignancy of Many Malignant Tumors.—Koschier in a recent number of Wiener Klinische Wachenschrift tells of a number of cases of sarcoma and

carcinoma of the throat and larynx most of which were removed and have failed to recur after the lapse of from two to nine years. Others not operated on have remained quiet for a number of years. The explanation of this benign course, the author says says, must lie in the slight virulence of the neoplasm, or in the power of resistance of the individual, but as we do not know the means whereby the organism protects itself against carcinoma, or in what the virulence of the tumor consists, we are unable to determine in advance these determinative factors in the prognosis. Hence the knowledge of such cases should not lead us astray and cause us to oppose the earliest possible radical removal of malignant growths, as the only means which answers to the ideal of our therapeutic efforts.

Use of Sterilized Clothing for Infants.—Weill advocates the use of sterilized clothing for infants as a preventive of localized skin lesions of pustular nature. The clothing should be regarded as a true condenser of germs, and the skin should be treated as a surgical wound is treated, that is with aseptic precautions. He found in the creche at Lyons that all these local skin suppurations were prevented, and that in children who had contracted them the use of sterilized clothing soon put an end to them without other treatment. Each outfit is placed in a canvas bag and then in the serilizer, and the bag is not opened until the clothing is to be used. After the linea so prepared had been used on one occasion the sterilizer was undergoing repairs and unsterilized clothing had to be used, with the result that the suppurations began to occur again, and stopped only when sterilized clothing was again used.—Archives de Medecine des Enfants.

Professional Schools.—We believe that the following information extracted from the United States Bureau of Education Report, No. 428, on professional schools will prove interesting.

"There are 144 medical schools in the table for 1908 9, a loss of five from the proceeding year. The number of students enrolled was 22,128, which is less by 629 than in the year preceding. All of this loss was in the so-called Regular school of medicine, for while the Homeopathic schools sustained a loss of 37 students, the Eclectics and Physio-medical had an increase of 126. There has been a decrease in the last six years of nearly 5,000 (4,904) in the number of medical students. The question arises, To what is this decrease attributable? While the answer must be largely conjectural, there are several plausi-



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ble eqplanations. Increased rigor In the examinations by medical boards has probably discouraged some, and possibly the full deterrent effect of a four-year course, with its attendant increase of expenses, has only lately been fully felt. The expense incident to a medical course has increased varying from $1,000 to $2,000, according to several college announcements."—Exchange.

Superheated Air in After-Treatment of Laparotomized Patients.—Strempel, in an article published recently in Deutsche Zeitschrift fur Chirurgie, is very much interested in the way in which peristalsis is stimulated after a laparotomy by applying heat to the abdomen, either in the form of the hot-air box or an incandescent eiectric-light box. The author has used the latter exclusively as he happened to have a contrivance of the kind on hand. In his 141 cases flatus passed generally in from 18 to 24 hours, seldom as late as 48 hours. Another advantage of the method is that the patients are thoroughly warmed by it, counteracting the tendency to chilling during the operation. The temperature in his box can never get over 55 C. so that the box does npt require very close supervision. The writer applies it for an hour and a half at a time, with intervals of 3 hours, and keeps this up night and day until all danger of intestinal parclysis is past. He has never wittnessed any injurious effect on the heart and vessels although he has kept close watch for any tendency in this direction. No adjuvant measures were needed in any instance as the heat answered all purposes, except in a few cases a pint of water was injected to soften hard feces, or an intestinal tube was inserted to promote passage of flatus when the patients were to strain. The only possible mishap from this method of after-treatment is that very restless patients on arousing from the effects of their anesthetic are liable to scorch the skin against the electric lights. The heat not only stimulates peristalsis but seems to promote absorption and prevent formation of adhesions while it seems to attenuate the virulence of bacteria in the region.

Effect of Mercury upon the Outcome of the Seroreaction.—Brauer (*Munchener Medizinische Wochenschrist*) forms the following conclusions: 1. A positive reaction may be met with associated with a great excretion of mercury, and a negative reaction may occur when such excretion of mercury is slight or absent. 2. A previously negative reaction may become positive in spite of the presence of moderate or large quantities of mercury in the blood. 3. A reaction which has become negative under the influence of the treatment may become positive again in spite of the mercury remaining. 4. The mercury in the serum of a patient undergoing treatmrnt for syphilis is unable to destroy or paralyze the complement fixing substance in the serum of an untreated syphilitic. 5. Clinical observation teaches that the influence of the mercurial treatment upon tue outcome of the serodiagnosis differs in fresh and old syphilis. 6. The mercury contained in the organism is without direct influence upon the outcome of the serodiagcosis because it attacks the syphilitic virus itself and not the complement fixing material.

Remote Signs of Abdominal Cancer.—Lejars in the Senaine Medicale, Paris, discusses the enlargement of the supraclavicular glands and the patch of induration in the pouch of Douglas and the tough shrivelling of the umbilicus as instructive signs of internal cancer. The ovary is a frequent location for transplantation metastasis of gastric or intestinal carcinoma, and the same effect of gravity is seen in the pelvic deposit in the pouch of the Douglas. It is equally important to examine the umbilicus, induration and shrivelling at this point sometimes being the first clue to cancer within. In one such case, a robust man of 58 had complained of a little discomfort in the umbilicus and occasional slight pain. In every other respecs he was in apparent perfect health, free from any gastro-intestinal disturbances. The umbilicus looked like orange skin, and there was induration but none beyond or below. Lejars diagnosed a deep latent cancer and this was confirmed by the death of the patient from cachexia in less than a year. In another case the umbilicus was apparently normal except that one side had retracted and palpation showed a small nodul below There was suspicion of gastric cancer in this case and this finding in the umbilicus hastened operative treatment. It is possible that the secondary umbilicus cancer may be taken for a hernia or an umbilical hernia may develop a cancerous nodule.

Implantation of Dead Bone.—Kausch (*Beitrage zur krinischen Chirurgie*) has implanted bone from the cadaver, ivory supports, and dead bone, reporting in this article 8 cases. The records show that cadaver bones and foreign substances are unsuitable material for implantation, but that bone taken recently from the human body but no longer living can be made to answer the purpose admirably. In one of

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the authors cases the tibia was resected, including the periosteum, on account of sarcoma, and a corresponding piece of the tibia from a leg amputated the day before on account of sudden trauma was implanted in its place. The periosteum was scraped, the epiphyses sawed off, the bone marrow scooped out, and a piece 8 cm. (over 3 inches) was implanted in the patient's leg. It was held in place with a long ivory tube at each end, passed into the inner canal in the bone of the graft and stumps. Recurrence of the sarcoma compelled amputation of the leg 266 days later. The implanted bone had become covered with a new growth of periosteum and was being absorbed, its place being taken throughout by new bone tissue. The ivory had been absorbed also but there was no new regeneration of bone in its place.

Heart Puncture.—Milne in the London Lancet reports a case in a girl aged 20 who was healthy till the age of 18 when she had rheumatic fever and was ill for 3 months. The heart was damaged and she afterwards had a mitral bruit, systolic in time, but with no dilatation and no anasarca. Sometime ago she had a recurrence which left the heart still more damaged, and the apex beat was now always in the nipple line and one inch below. She had no evidences of failure till she was taken ill again with a cold and rheumatic pains. In addition to her cardia condition there was well-marked hypostatic engorgement of both lung bases, chiefly on the right side. On May 23, there was dilatation of the heart one inch beyond the nipple to the left, and one inch beyond the right border of the sternum to the right. The writer perceived that heart failure was imminent, and that nothing but a reduction in the volume of the blood could avert death. He therefore proceeded to open the left median basilic vein but no blood flowed. He then opened the right median basilic with a like result. He cut Peeper on the left into the brachial artery above its division into the ulnar and radial arteries, and only a feeble trickle of dark blood flowedr During all these manipulations the patient felt no pain, but lay half unconscious, with dilated pupils, cold sweats, cyanosed color and stertorous respiration, while the heart was getting more and more distended and the author could feel no pulse in the temporals.

The writer then selected the fifth intercostal space, close to the left border of the sternum, as being in the circumstnnces likely to lie over the right auricle, since the distention had been more and more to the left. Having frozen tha spot with ethylchlorid, he inserted a trocar and cannula of about the size of a No. 3 catheter vertically into the heart. Blood immediately flowed of about the color of porter and thick in consistency, and the cannula oscillated with the heart beats through an angle of about 25 degrees, inclining from the original vertical position to this extent to the right. The blood came in jets only when the cannula was vertical—that is, when its point was pulled to the right. This author drew off 20 ounces and then withdrew the cannula and closed the puncture by acupressure. Almost suddenly the patient revived becoming quite clear and collected; she expressed herself as having felt no pain and as being quite relieved. A small probang was passed down the trachea and took up a lot of mucus. The patient was left in a different state altogether, with no cyanosis to speak of, and the venesections showing blood through their dressings. The pulse at the temporals was fair, the lips were pink, and the pupils normal, and when the sweat was wiped off no more appeared. This was at 3.30 p. m., the puncture having been made at 3.20 p. m. The patient remained clear and free from pain and distress till 7.20 p. m., when she died. Puncture of the heart thus prolonged life, in the authors opinion, for hours after the circulation was so feeble as not only not to make the opened veins bleed, but even the brachial artery was unable to show pressure at all.

Hyperemia in Internal Diseases.— Weidenbaum, in the Medizinische Klinik, says that he has been applying constriction or suction hyperemia as a routine measure in treatment of gall-stone and liver troubles, sciatica, leg ulcer and asthma during the last five years, and has been much gratified with the good effects obtained. In over 100 cases of gall-stone and catarrhal liver enlargement, the application of a large suction bell over the liver region gave almost immediate relief, the pains and the swelling of the liver rapidly subsiding. The effect is very striking in gall-stone colic, the whole attack being aborted by the action of the large cupping glass, so that now he always applies the suction bell or hot air box before giving morphin even in the severest attacks from gall-stones or kidney stones; it frequently renders the sedative unnecessary. In some cases the pain increases under the suction bell, and the temperature rises; when this occurs the trouble is invariably empyema of the gall-bladder, and this differentiates the condition at once. The superheated air box answers the same purpose as the cupping bell and is preferable for nervous patients or when the skin is sensitive. With kid-

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ney-stone colic and sciatica the suction bell gives the greatest relief, the bell being pressed firmly down over the kidney or the sciatic foramen, In a number of cases of diabetic polyneuritis in which the pains had resisted all other measures, they subsided under a constricting band. Great care is necessary to keep changing the position of the band, moving it up or down and constantly instructing the patient to warn of the slightest sensation of discomfort, as otherwise decubitus might develop under the band. Notwithstanding this grave danger, the writer asserts that the great service rendered by the band in some cases justifies its use.

At the Twentieth Annual Convention of the American Electro-Therapeutic Association held at Saratoga September 13,14 and 15th, 1910, the following officers were chosen for the ensuing year. President, Dr. Frederick deKraft, New York; Vice-Presidents, Drs. F. Howard Humphris of London, Eng., and Frank B. Granger of Boston; Treasurer, Dr. Emil Heuel, New York; Secretary, Dr. J, Willard Travell, New York; Registrat, Dr. Frederick M. Law, New York; Trustees for three years, Drs. Charles R Dickson of Toronto, and Thomas D. Crothers of Hartford Conn.

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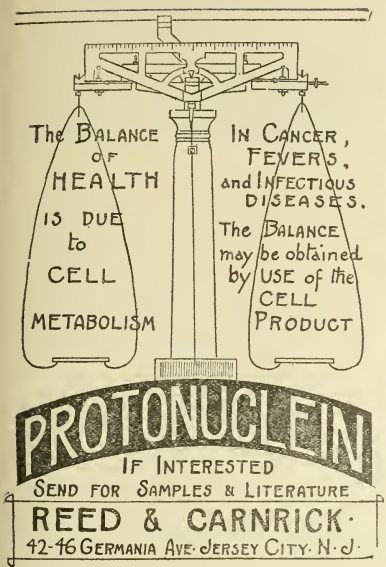
Effects of Antisyphilitic Treatment.—Gibbs and Bayley, in the London Lancet, have put forth a great deal of effort to find out by means of the Waisermann reaction the comparative value of various antisyphilitic drugs and methods of administration in 231 cases. 138 cases treated with mercurial pills, 66 had received under six month's treatment, and of these 62 gave a positive reaction (94 per cent.). After this time, however, the effect of mercury is clearly shown. Of 33 cases that had received from six months to a year's treatment, 19 were positive (57 per cent.) and 14 negative. Of 25 cases that had received 18 months' treatment 10 were positive (40 per cent.) and 15 negative. Of 16 cases of inunction treatment all were positive. Of 15 cases treated with mercurial suppositories all were positive. Of 32 cases that had received under six months' pill treatment, 30 were positive with both doses of complement (1/10 and 1/5) (94 per cent.) and 2 were positive with the smaller dose, but showed some hemolysis with the large dose (6 per cent.). Of 11 cases that had received treatment for from six months to one year, 3 were positive with both amounts of complement, 6 were positive with the smaller amount, 2 showed hemolysis with both amounts of complement—i. e., 70 per cent. showed the effect of mercurial treatment.

Out of 7 cases that had received 18 months' treatment, 1 was positive with both amounts of complement, 4 were positive with the smaller, but showed some hemolysis with the larger amount, and two showed hemolysis with both amounts of complement—i. e., 86 per cent. showed the effect of treatment. In other words, of the 17 cases which had received over 6 months treatment only 3 showed hemolysis with the smaller amount of complement, whereas 14 showed hemolysis with the larger amount of complement—i. e., 83 per cent. showed influence of treatment. All those showing a positive result with the smaller amount of complement are active syphilities.

Of 11 cases of treatment by mercurial inunction, all under three months' treatment, 2 were positive with both amounts of complement, and 9 were positive with the smaller amount but showed some hemolysis with the larger amount; i. e., 82 per cent. showed effect of treatment, therefore, and this after only three months. Of 17 cases that had received 12 injections of calomel 11 were positive with both amounts of complement, and 6 were positive with the smaller, but showed some hemolysis with the larger amount; 35 per cent. therefore showed effect of treatment. Of 14 cases treated with suppositories for under 6 months, only 3 (21 per cent.) showed any effect of treatment.

Stretching the Nerve in Treatment of Sciatica and Other Nervous Disease.—Heermann (*Deutsche Medizinische Wochedschrift*) says pull on the leg of the reclining patient, exerting about as much force as for pulling off a boot. If this relieves the pain of the sciatica, the author applies extension systematically, raising the extended leg once or twice a day to the point borne without special pain and then applying extension to the foot with the leg resting on an inclined plane. This is repeated cautiously once or twice a day for from 5 to 30 seconds at a time. This stretching is supplemented by stretching the leg backward for a few seconds as the patient lies on the side. The ordinary measures are also applied but the nerve stretching often proves successful alone. For adjuvant massage the writer places his hands flat and gently on the abdomen and sacrum of the patient as he lies on his side. If the patient shrinks he stops immediately, but if the pressure is gratefully received he massages with the flat hand, making circular motions and gradually approaching nearer and nearer to the points of greatest pain. This massage in combination with the extension relieved the pain better than sedatives in some of the authors cases. Pressure from a dry rubber sponge inside a girdle is useful in the cases in which pressure relieves the pain.

Constitutional Factor in Nervous Disturbances.—Margulies in the Medizinische Klinik says from the clinic in charge of von Jadsch at Prague to relate a number of cases of recurring oculomotor paralysis or toxic polyneuritis in which the evidence seems to sustain the assumption that certain nerves or nervous systems are congenitally predisposed to yield more readily to injurious influences than those in other persons. This assumption is confirmed by the occurance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of certain affections in families. Some parts of the nervous system, especially the peripheral, are peculiarly non resistant in these persons and yield readily to injurious external influences, while other regions and other individuals escape. The writer reports a case of toxic polyneuritis in a father and 2 sons, the symptoms suggesting cholera and being followed by pains and paralysis in the legs, all coming on simultaneously in the 3 men after eating heartily of a dish of rice. The father succumbed by the end of the second week, with all the extremities paralyzed. The young men have recovered some ability to walk during the year since, but suffer from pains in the legs and early exhaustion. The syndrome suggested beriberi, especially as it came on immediately after eating rice. There had been no disturbances elsewhere in the town from eating the rice from the same bag, and nothing abnormal could be discovered about the rice when examined by the authorities. Everything speaks for the assumption, he is convinced, of a constitutional susceptibility on the part of the nervous system involved; the clinician should strive to distinguish this constitutional factor in the syndrome observed from the symptoms peculiar to the affection in question.

Ulceration of the Frenum Linguae in Whooping Cough.—Apert mentions a symptom of whooping cough that he considers almost pathognomonic, and which occurs in about 50 per cent. of the cases observed by him. This is a superficial ulceration of the frenum linguae, generally linear, and which on scraping gives a grayish mass consisting of epithelial cells, and multitudes of leptothrix germs. It is situated in the median line and on the free border of the frenum. Of 252 cases seen by the author, this ulceration occurred in 111; in 105 it occupied the classical point on the frenum. Exceptionally there is the formation of a false membrane. This ulceration appears in the second or third week of the disease, sometimes as late as the seventh or eigth week. Two theories have been given as to its causation; first, that it is due to friction of irregular incisor teeth; second, that it is a specific ulcertion. The truth seems to be between the two opinions—Le Bulletin Medical.

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Treatment of Rupture of the Uterus.—Issel in an article published in a recent issue of Murchener Medizinische Wachenschrift describes 9 cases of rupture of the uterus during delivery. The 2 fatallities were from peritonitis resulting from the reduction of the intestines prolapsed into the vagina, five hours before the operation, in one case, and from hemorrhage on the operating table in the other case. Immediate ligation of the hypogastric and ovarian veins on both sides is an important factor in treatment; it spares the patient father loss of blood and the operation proceeds in bloodless field. This author advocates prompt abdominal hysterectomy, as fatal rupture is peculiarly liable at a later pregnancy when the first rupture was given merely conservative treatment. The communication issues from Kronig's obstetric service at Freiburg. The general practitione- is advised to send the patient to a hospital as soon as the rupture is discovered, refraining from any attempt to complete the delivery. The experience of Schutte, Petren and others that these ruptured women are able to stand transportation even from a considerable distance was confirmed in Issel's cases, one patient being brought from a neighboring town to the clinic. The patient either succumbs at once to the hemorrhage—which is rare—or small repeated hemorrhage occurs, allowing time for the woman to be taken to the hospital, If conditions are favorable, the abdominal hysterectomy can be done in the home. If institutional care is not attainable, the delivery can be cautiously completed, followed by tamponing, or if the hemorrhage is not severe, by merely draining the wound cavity. With one exception, a primipara of 29, the writer's patients had all borne from 5 to 8 children. In this case the posterior vault of the vagina was accidentally perforated about 3 hours after spontaneous childbirth, during an attempt to separate the placenta by hand. The abdomen was opened and the vaginal wall found torn from the uterine cervix; the tear was readily sutured and the abdomen closed without further interference. The patient was discharged cured after passing through a severe puerperal fever. Hysterectomy was done in all but one of the other cases, with or without leaving the adnexa intact on one or both sides.

Removal of Bladder for Carcinoma.—Petrow in the Deutsche zeitschrift fur Chirurgie tells of a case in which the patient was in good condition 9 months after total removal of the bladder for malignant disease. In a second case the disease was far advanced and the heart dilated, and the patient succumbed during the preliminary operation. The writer reviews 64 cases which he has found in the literature, the immediate mortality having been 50 per cent., 11 others succumbing in from 2 to 5 years, while 13 othes are still living from a month to 16 years since the operation. The ureters were implanted in the intestine in 11 cases, including 6 in which the patients are still living after from 4 to 18 months, while the survival was from 3 months to over 5 years in the 5 other cases. In the 3 cases in which the ureters were implanted in the vagina, the patients are all still living, after 3 months, 8 months and 16 years. In 9 cases the ureters were implanted in the skin in the lumbar region front or back, and 5 of the patients died in from 2 to 13 months; the others are still living after 4 months in 1 case and 2 years in the 3 others. The communication issues from Oppel's surgical service at St. Petersburg. The author advocates operating on the ureters first, not removing the bladder until two weeks after they have been implanted at the desired point. The laparotomy for the purpose allows oversight of conditions before the final operation. The outcome depends on the state of the kidneys as a rule; if they are diseased, as in the author's second case, there is not much hope of a successful termination.

Infected Cystic Kidney.— Bull (*Worsk Magnziu for Laegevidenskalien*) says that the diagnosis is generally very difficult, as the physician seldom thinks of the possibility of this rare condition. The cystic kidney is peculiarly liable to become infected. Sieber found infection mentioned in 10 per cent. of 200 cases on record, and Borelius in 1 of his 4 cases. The writer calls attention to the family tendency in his cases; a man and 3 of his 11 children and a brother and sister had cystic kidneys, the diagnosis being confirmed by operation or autops

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The symptoms came on about the age of 24, and none of the third generation have reached this age yet. Notwithstanding that the tendency to cystic kidney is bilateral as a rule, if one kidney is predominantly affected while its mate is still functionally capable, nephrectomy may be indicated. The author reviews the northland literature on the subject and Sieber's monograph. In only 9 of the 200 cases was only 1 kidney involved as determined at autopsy; both were involved in 150. In about 12 per cent. of all the cases the lesion had never induced appreciable symptoms. The urine may be normal but generally is like that with contracted kidney. The kidney region is usually tender and there may be vague or sharp pains, constant or paroxysmal. Intermittent hematuria was observed in 20 per cent. of the cases, hypertrophy of the heart

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in 50 per cent. and a hemorrhagic tendency was frequently apparent, apoplexy even in the young, epistaxis, intestinal hemorrhage and hemoptysis. Nephrectomy was done in 61 cases with 20 fatalities; 8 of the patients are still living after from 3 to 7 years. Nephrotomy was done in 10 cases, on both kidneys in 4, with 2 fatalities.

How Long Should Women Stay in Bed After Delivery?—Brandt and Horn in the Norsk Maguzin for Laegevidensbaben, say that their investigation of the subject has shown that involution and healing are not well under way before the tenth or twelfth day. If the woman gets up before this date infection is liable to occur and may easily be overlooked while a predisposition to genital prolapse may develop.

Postoperative Occlusion of the Duodenum.—Hardouin in the Presse Medicale, tells of 5 cases of this accident The true cause of the disturbances was recognized in time in 3 cases but not in the others and these 2 patients succumbed. The causes for the post-operative occlusion are evidently multiple as it develops after the most diverse abdominal operations, but the primary dilatation of the stomach and the preponderant role of the peripheral nervous system are features common to nearly all the cases on record. Although the occlusion of the duodenum is secondary, it soon assumes the most prominent part in the syndrome and is the cause of the lack of results from lavage of the stomach and other measures, The importance of this duodenal factor is abundantly demonstrated further, he states, by the immediate relief and often the entire cessation of all the disturbances when the mesentery is relaxed by turning the patient over on the abdomen or in the knee-chest position. In the author's first case the patient was doing well, second day after hysterectomy for fibroma when serious symptoms suddenly developed—incessant vomiting, small rapid pulse and ballooning of the epigastrium. Lavage of the stomach gave only slight transient relief, but placing the patient in the knee-chest position put an end almost immediately to all the symptoms. The patient was then left in the ventral decubitus and in half an hour the bowels moved and all disturbances was at an end. In the second case, the woman was placed in the knee-chest position at the first sign of trouble, and there was no further disturbance. In the fourth case the knee chest position was used but not until after the syndrome had lasted for about 4 days and the patient died in collapse after subsidence of the special symptoms. In the other case no attempt was made to change the position of the patient and she died the next day; this case occured in a country practice.

Symptoms-Complex in Ruptured Abdominal Hydatid.—Blarling and Welsh in an article recently published in the Australin Medical Gazette, refer to a series of 6 cases of hydatid disease complicated by rupture or leakage of the cyst into the peritoneal cavity. In 5 of the cases the cyst was situated in the liver, in the remaining cases in the spleen. In 50 per cent. of the cases examined, the blood change was a marked one, in another 25 per cent. the change was moderate, while in the remaining 25 per cent. it was entirely absent or so slight that it was of no use from a diagnostic point of view. The writer found eosinophilia to be a marked feature of every case in which the cyst had ruptured or leaked into the abdominal cavity. The actual number of the eosinophils present in the blood in the 6 cases varied considerably. In 3 the reaction was excessive, the actual figures being in the first case 8,580 eosinophils per c.mm., or a number equal to 54 per cent. of the leukocyte content of the blood; in the second case there were 8,200 eosinophils per c.mm., or a number equal to 47 per cent. of the leukocytes; in the third case there were 5,440 eosinophils per c.mm., or a number equal to 34 per cent. of the total leukocytes. In two of the remaining cases the blood change was a marked one, there being in one of them 1,628 eosinophils per c.mm., a number equal to 22 per cent. of the total leukocytes, and in the other 1,320 eosinophils per c.mm., a number equal to 12 per cent. of the leukocytes present. In the one remaining case the reaction, though slight, was definite, there being 354 eosinophils per c.mm., a number equal to 5,6 per cent of the total leukocytes.

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cases of ruptured abdominal hydatid is the peritonitis set up by the presence of the hydatid material in the peritoneal sac. The most noticeable feature of this peritonitis is the large amount of fluid which is poured forth. The third feature is the urticaria which attends the rupture of the hydatid cyst. In the cases which have come under the author's notice it was invariably present.

In 2 of the 6 patients no history of a rash could be obtained, although careful inquiries were made on this point. In the other 4 cases urticarial rashes were noticed by the patients, coming on soon after the rupture, lasting for a day or two, then passing off. In one case there was a history of recurring attacks of urticaria, the attacks in all probability coinciding with a periodic escape of hydatid fluid into the abdominal cavity.

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Case of Cerebral Tumor.—Ormerod reports a case in a recent issue of the Clinical Journal, London. The principle points of his case were as follows:

The tumor was a sarcoma; its position as found at necropsy was in the right frontal lobe, where it was diagnosed during life. Although it was correctly localized during life, the localizing symptoms were very scanty. The patient was operated on, i. e., the skull was trephined and the dura mater was opened. No tumor was found, but the relief was very complete for the time. However, the symptoms recurred and finally the patient died. The first symptoms began in May, 1906. He was under observation off and on in the hospital for the last 11 months of his illness, and the total illness, as estimated from the first symptoms lasted three and a half years. The first symptoms were fits. In these fits there were no convulsions, only loss of consciousness. They began in May, 1906, and he had about one a week for 2 or 3 months. After this he had an interval of 9 months without a fit. Then, in May, 1907, he had an attack in which he lost consciousness and fell off a ladder and hurt himself. Ater this he seems to have an interval of a year without any symptoms at all.

In June, 1908, other symptoms began, namely. headache and vomiting. The vomiting, as is usual in such cases, had no relation to food. The headache was intermittent; at any rate, at first. It was said to be brought on when the patient went into a bright light. The headache and vomiting became worse, and 2 weeks before admission he had another fainting fit, which seems to have been the signal for all the symptoms to get worse. Optic neuritis was more advanced on the right side than on the left. The man had an incomplete paralysis of the left side of the face, affecting only the lower part of the face, not the orbiculis oculi nor the occipitofrontalis. This facial paralysis had a character which is peculiar and which is not often seen, that is, the paralysis was more marked in reflex muscle movements of his face than in volitional movements. About the end of Jaunary or the beginning of February he developed a transient diplopia, due to weakness or the right external rectus muscle. At this stage he began to get rather dull; he developed a certain fine tremor of his hands. His headache became persistently worse and the symptoms appeared to increase steadily, and, as antisyphilitic treatment seemed to bring about no permanent benefit, the operation was performed. At the post-mortem examination a sarcomatous tumor nearly as large as an orange was found in the right frontal region.

Acute Pyelonephritis Due to Bacillus Coli.—Rolleston says in the London Practitioner that it is important to be on the lookout for infection of the urinary tract with Bacillus coli, for it may give rise to grave constitutional symptoms without any prominent local manifestations; this is particularly so in children, but it may also occur in adults. The Bacillus coli may gain footing in the urinary tract in three ways: 1. Ascending infection, or the upward extension of the micro-organism from the urethra to the bladder, ureters, and pelvis of the kidney. This method of infection occurs in females, especially in early life, and has been explained by the shortness of the female urethra, and by its liability to be infected from the adjacent anus by fecal discharges, and by thread worms. 2. Descending infection, or infection due to the excretion of organisms from the blood into the tubules of the kidney. 3. Transparietal infection, or the passage of microorganisms from the colon to the kidney, probably by means of the lymphatics. Vaccines made from Bacillus coli isolated from the patient's urine have been largely given but opinion is not unanimous in their favor. Surgical treatment the author regards as unnecessary, except (1) in the most severe cases in which there is suppuration spreading into the kidney substance; (2) in chronic cases in which a pyonephrosis has developed; (3) in secondary cases in which there is a calculus in the kidney.

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The Charlotte Medical Journal

VOL. LXII CHARLOTTE, N. C., NOVEMBER, 1910. No. 5

The Genesis of Traumatic Neurasthenia and Hysteria. Emotion and Notion.

By Tom A. Williams, MB., CM., Washington, D. C., Memb. Associe Soc. de Med., Med. Clin. Paris, Neurologist to Epiphany Free Dispansary, Memb Soc. de Neurol: Corresp. Soc. de Psychol., Paris, Founding Memb. American Phychopath Association, etc.

I. COMMON BELIEF THAT EMOTIONAL SHOCK CAUSES PERMENANT NERVOUS DISTURBANCE. PSYCHOLOGICAL VIEWS REGARDING EMOTION.

The prevalent belief that emotional shock is the preponderant factor in chronic perturbations of the nervous system is receiving less and less the acceptance of neurologists; and even psychiatrists are now departing from what was once a firm conviction. (1) It would be a pity, for this reason, to go to the other extreme and ignore the role of emotion in psychological and even somatic pertubations; for every psychologist must know what a rich, almost virgin, field is furnished by the quantitative study of affective reactions. In a short paper I must necessarily leave out of account the epistomological difficulties with which the subject bristles. (2). We are not yet even decided whether pleasantness and unpleasantness are really sensations or differ from these in kind. There is much difference of opinion as to whether other feelings, e. g., surprise, angoisse, etc., should be considered elemental equally with these, Even the co-relations of each of these are undetermined, some believing with Lagerborg (3) that pleasantness is not only a cognate of, but intrinsically is, of sexual character, and some believing that unpleasantness is merely an attenuated form of pain.

Nor is there agreement as the qualitative relationship of feelings, affectivity, emotion and passion. French neurologists of the positivistic school regard them all as "sentiments," (4) and physiologicalls as functions of cenesthesis, while other schools (5) place emotion in a category different from feelings on account of its relative complexity.*

II. EMOTIONAL SHOCKS ARE EVANESCENT.

The inefficacy of emotional shock to perturb for long unless maintained by an ideational attitude has a familiar illustration in the sudden start which all of us give at one time or auother when surprised by an unexpected violent sensation. The circulatory and visceral commotion of such a stimulus has been felt by us all. It takes different forms, facial palor, bodily perturbation, sense of contraction in the throat, sinking feeling in the abdomen, respiratory spasm, horripilation, motor asthenia, etc. But the effect of these perturbations, however violent, is evanescent, the subject in a moment resuming his occupation as if nothing had happened.

It is well that it is so; for if it were not, we should still have been a race of skulking savages shivering at each breath of wind, and incapable of that confidence (5a) needed to achieve continuous and concerted action.

III. UNLESS REINFORCED BY IDEAS.

But very differen is the result when an elementary emotional disturbance of this kind receives reinforcement from an intellectually acquired belief in its import. Every one who has observed young children can illustrate this by countless examples where an instant of alarm is so protracted by the unwise solicitude of ignorant elders that a state of terror ensues.

In the country of the negro mammy I need not prolong the argument with examples of *fear complexes* (6) thus originated, which ineradicably intertwine themselves with. and poison the existence of, many an individual.

IV. EXAMPLES OF INDUCED AFFECTS.

The affective element of a fear-neurosis need not even be primitive: it may be itself induced. The mechanism can be studied again most simply in the young child; and again in the Southland, no examples need be cited to make clear my meaning. The tale of voodoo, if it failed to provoke horror, would no longer appeal to the narrator. Though perhaps not so designed, yet it survives, because of its power to induce emotion. This, it does, partly intellectually through the ideas it conveys by speech, and partly through the lower order of intelligence appealed to by gesture, tone of voice and perhaps too by the direct cognisance by the recipient of the emotional condition which the narrator himself experiences.

Emotion by suggestion has a mechanism

*Read before the Southern Society of Philosophy and Psychology at their meeting in conjunction with the Southern Educational Association at Charlotte, N. C., Dec., 28th 1909.

of this kind; and it is to a failure to appreciate this process that must be attributed much of the confusion regarding the alleged emotionalism of hysterical people. Now, hysteria is not an affective psychosis, but an idiogenetic one. The only affective element essential in the development of a hysterical symptom is that inherent in the intellectual attitude or belief, i. e., a feeling of acquiescence.

V. THE AFFECTIVITY IN PSYCHASTHENIA.

This leads me to say a few words about a psychosis which is largely affective, and of which one of the elements is the lack of this feeling of belief; I refer to the psychasthenia of Janet. (10) Now, although Janet, himself, inclines towards an intellectual explanation of his patients' state, many with Regis, (11) regard emotion as the primitive phenomenon in the obsessive psychosis; and some remarkably searching introspections by patiets of my own inclines me towards this view. One patient states: "I do not feel it is any use reasoning away this obsession; there is something inside me, and when one is driven away another comes." Another patient after he had described and I had disposed of one of his intellectual difficulties, declared "that's not it, it is this awful feeling; shall I ever be able to feel right again? Nothing feels the same; I enjoy nothing." These and many other examples which might be cited seem to indicate that the mental mania or obsession is merely engrafted upon a state of feeling, and is more an explanation unconsciously applied by the patient to account for his state than by an essential part of the disorder. This argument is strengthened by a study of the multiple phobias. In these, fear may manifest itself apropos of anything or nothing.

VI. THE INDUCTION OF SUGGESTION-PSYCHOSES. THE EMOTIONAL CONSEQUENCES.

Now, both obsessions and phobias may be secondary to idea-systems artificially induced; (12) thus falling into the category of the suggestion-psychosis, hysteria, just mentioned. It is the confounding of these cases with the true psychasthenics which has lead to so much disagreement regarding the genesis of the morbid fears and obsessive states. (19) The distinction is fundamental to a clear understanding of the psychoneuroses, (13) and hence is one as important to the practicing physician as it is to the physiological psychologist.

The subject need not be conscious of these idea-systems. for they may be merely intellectual potencies implicit in the psychic constitution derived from his environment.

In the gross, these are most clearly manifest in what our attitude of detachment easily enables us to label the superstitions of alien peoples. Thus the sufferings induced by the gnawing fox of the Japanese are made possible only by a deeply rooted belief in its existence. For example, (14) a woman after labour declared that she felt the fox coming; this was her interpretation of the after-pains she felt. The great parade by the neighbours in attempting to prevent the fox's attack only reinforced the patient's apprehension; and soon a horrible convulsion signalized her seizure by the fox. Terror and convulsions held her until the exorcisor was called. He declared that the fox would leave her at four o'clock the next day, provided certain offerings were placed on a certain tomb for it to eat. This simple suggestion caused her to dismiss her terror suddenly at the hour designated.

The crudeness of the mechanism in the case of this ignorant peasant need not make us smile; for our western case is very little better as the following illustration shows: (seen with Dr. S. S. Gale, Roanoke, Va.

A CASE OF TRAUMATIC NEUROSIS.

It is the familar case of an incapacited railroad employee, to whom I was called to determine whether or not there was organic disease of the nervous system. The psychogenesis of the man's condition was evident in his fixed idea, due to the common belief of railroad employes that serious nervous disease may slowly ensue upon an accident, strengthened by the injudicious sympathy and inquires of his friends and the doubtful prognosis of some medical men he had consulted. He "answered a thousand questions a day," he "did not know what to think about his health," and worried about his condition and circumstances; he was "too much preoccupied with his health even to miss his wife," he had lost weight and appetite, had a sore throat and wept much; and finally his attitude was strengthened by the lawyers who sought redress for him. He was cured within a month as a result of one interview, during which he was instructed in the role of ideas over bodily activity and the effects of worry and anxiety upon nutrition. In the certificate it was stated "there is and has been no disease of the spinal cord or peripheral nerves at play in the induction of any of the symptoms which I find. The erroneous belief that there has been such an injury powerfully contributes to the anxiety which maintains his present state."

The role of the idea of spinal commotion in perturbing this man's emotional life is strictly comparable with that of the gnaw-

ing fox of the Japanese folklore. In both cases too, there was the period of reflection and incubation of the morbid notion, a familiar feature of such cases, which has been insisted upon by Souques. (15) It is rare that the symptoms ensue until after a time of meditation, during which the complex is sytematised.

THE METHOD OF CURE.

The cure was not so simple as that of the Japanese exorcist. But it was a definite one; for the railroad brakeman was taught (16) to understand the mechanism of his affection and thus to overcome any future harm from the credulity in which he had grown up. The Japanese woman, on the other hand, remained liable to another attack, as her belief in the fox was only reinforced by the manner of its removal.

A contrasting case were therapeusis failed will further push the lesson home. A government employee was injured by a falling case, and remained hardly able to walk and handle himself even after his bruises of head and shoulder had healed. Called in consultation, I explained the mechanism of his present incapacity, and directed how to remove it. His family physician's acquiescence to my directions was only formal, as his bent was not psychologic enough to grasp the principles at work. The fearful solicitude of the man's wife, too constantly reinforced his timidity, so that in spite of a considerable temporary improvement, he did not progress to full recovery; but remained lacrymose, depressed and relatively incapable on account of the persistence of his false belief about his health and powers.

VII. THE FALSE NEURASTHENICS.

Even more familiar examples of suggestion psychosis, supposedly emotional but in reality contributed to by the wrong outlook of relatives and associates, afford a large proportion of the cases for whom rest cure is prescribed. These false neurasthenics (17) are cured not by the rest cure but by the re-education of their point of view, which their isolation permits the physician to impose willy-nilly and free from the interference of dear ones who are, to say the least, injudicous.

DIAGNOSTIC CONSIDERATIONS.

It remains to indicate shortly the differanta of the condition we are considering from physical neurasthenia, the psychasthenic states, the mental alienations, in all of which occur phenomena easily confused by the uncritical with the true suggestion-psychoses. (20).

In neurasthenia, the physical misery which is its cause and which arises from an intoxicatiou of the whole organism, intrains psychic wretchedness also; and depressive emotion is a feature. This is not at all psychogenetic, although it may be temporarily modified by psychic means more or less. Even the psychological criteria may permit of a diagnosis; but it is to the physical factors that we physicians mainly look to detect the condition.

Constitutional or acquired psychasthenia is differentiable by (a) the failure of suggestive therapy to modify the symptoms, as well as by (b) the history of the genesis, in which suggestion plays no part. Moreover, (c) the idea complexes of hystericals are evoked by well-defined and not numerous associations, (d) their arousal in a psychasthenic often appears irrelevant. (e) Conduct in the psychasthenic is hardly affected, except negatively through doubt and aboulia, whereas, the conduct of the hysterical patient depends largely upon the pathological notions by which he is governed, and which determine most definite acts. Finally, upon the augoisse emotion of psychasthenia, psychotherapy is of no avail, whereas the crisis of hysteria is most easily arrested by psychic means, the emotion vanishing as by a miracle as soon as the causative idea is dispelled by command, suggestion, distraction or persuasion. Again, while re-education can teach a psychasthenic only to learn how to bear the sufferings incident to his unfortunate condition, it can from the hysteric entirely remove the tendency to perturbing induced emotion and the social discomfort it brings.

The curtailment of power of association in *general paralysis* often leads to an increased suggestibility, which in turn leads to morbid adaptations to environment like that outlined in the traumatic psychosis.

From the *dementing psychosis of adolescence*, the theoretical differences are on the surface sometimes not very clear, but practically the diagnosis is rarely difficult, on account of the efflorescence of somatic and psychic perturbations which usually accompany the exalted suggestibility of the precocious dement.

The trigger-like response to suggestion which characterises the *maniacal* phase of the *cyclothymic* individual is distinguishable by its mutability; and the same remark applies to the facility of the *chronic alcoholic*, in whom moreover, the emotional reactions are often markedly exalted independently of ideation.

The diagnosis in all of these conditions is determined by the fact that only a few of the phenomena. and those unessential, are influenced by the mechanism of suggestion which we have found to be the essential and indeed sole determinant of the psycho-

sis known as traumatic neurasthenia.

1758 K St.

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Old Versus New Therapy.

By K. P. B. Bonner, M. D., Morehead City, N. C.

Since the downfall of Adam and Eve and their consequent expulsion from the Garden of Eden, mankind has been subject to trials, troubles, and temptations. Not the least among these judgements sent upon us is our susceptibility to the contraction of disease with its sufferings. We may measure our efforts towards the alleviation of these afflictions just in the same proportion as the length of time they have been upon the human race. However, I am happy to say that we may not measure our efforts towards the extermination of these diseases in proportion to the amount of affliction sent upon us, because in this enlightened age we have awakened to the vast and immeasurable importance of the prevention. Since the fall of Adam, man has been endeavoring to discover means for warding off and utterly destroying the different agencies that make life miserable and thereby make life happy. In this trait of character alone we betray our relationship to Adam—in that we are striving to regain our long lost Garden of Eden. We may take religion, and we find that throughout it's history man is continually grasping out for a higher conception of the Deity Himself.

The science of medicine has not been the least among the agencies conducive to the happiness of mankind and tending to make complete his happiness. Medicine like all other means for the happiness of man must go and has been through a process of evolution. Even civilization itself must go through these stages of development. The tendency has always been onward and up-

ward to the pinnacle of perfection. In every phase of life the great idea in view has been the realization of the ideal or to convert this earth into an Eden.

In treating this subject, I shall not confine my remarks to the generally accepted and narrow conception of the term "therapeutics," in other words I shall consider any means used for the prevention, alleviation, or cure of diseases as therapeutics. This is what I consider a broad and liberal definition, and not the usual narrow idea of being restricted to drugs alone.

Very little attention will be paid to the therapeutics of the centuries prior nineteenth. This is a subject so broad that to compare the therapy of centuries prior to and subsequent to the birth of Christ with that of modern times would require volumes. Ignorance and superstition played such a great part in influencing the opinions of even the physicians that the comparison would be unfair. Kindly bear in mind, however, that I have the highest respect for the ancient and medieval physicians and surgeons. They used the best means for the prevention of and cure of disease that they knew in those times. I regret exceedingly that the rank and file of the profession are so little acquainted with the history of our noble calling. Every medical college in the country ought to require the mastering of the history of medicine before graduating any man. On the other hand, I have never seen this as a required subject in the curriculum of any college. Pardon this digression and I will get back to my subject. We should bear in mind that even where there were hosts of erroneous ideas there were some kernels of truths, and on these facts we have been able to build, and in this way bring our profession to the present state of perfection. Modern medicine is based on real scientific truths and any new theory must be proved by scientific methods before accepted by the profession at large. Science is the great guardian of modern life as well as our profession, rejecting the false and accepting the truth,—the latter only after careful investigation.

In the dawn of the nineteenth century the generation who were then living did not dream of the great advancement to be made in all lines of human activity; even the wildest speculation could not forsee the great strides that were to come in human progress. The medical profession has nobly kept up with the steady march of civilization toward perfection, and can well lay claim to their share of the glory. Let us compare the therapeutics of the first part of the nineteenth century with the latter half and has passed of the twentieth century. It will only be fair for us to bear in mind the fact that the physician of today has the advantage of the physician of the first half of the nineteenth century in that they have the knowledge of physiology, histology, bacteriology, micioscopical pathology, and various other aids. With these agencies to aid us have been enabled to establish our therapeutics on a firmer and more exact basis.

I shall present the claims of each side under three separate headings. The first being preventative therapeutics or medicine, the second, the therapy of medical diseases, and the last, surgical therapeutics.

PREVENTATIVE THERAPEUTICS.

Here we find that the medical brethern of the latter part stand out to a conspicuous advantage over the brethern of the first half of the nineteenth century. This is the case especially in infections and contagious diseases, due largely to the discovery that bacteria were the cause and also to the fact that antiseptics and serums naturally followed the discovery of bacteria. Man, as he becomes more enlightened, casts about him for a means of more effectually preventing disease. Following on the heels of these discoveries were intelligent quarantine laws and rational teachings of right ways of living. To justly famed Edward Jenner is due the credit of discovering the value of vaccination. He performed the first on May 14th., 1796. This was early afterwards recognized among the profession as an efficient means for preventing small pox, but ignorance and prejudice prevented general vaccination until the latter half of the past century. This means of prevention was at last recognized by the civil authorities and compulsory vaccination inaugurated. Now, small-pox is getting to be a matter of history; small epedemics occasionally break out but the disease has lost it's old time virulence and is soon controlled. Small-pox will in my opinion eventually disappear.

The older brethern knew nothing of the prevention of diphtheria, tetanus, typhoid fever infection following surgical operation and wounds, malarial, and bubonic plague, as well as a host os other contagious and infectious diseases. The prevention of diphtheria and tetanus was greatly simplified by the discovery of the serums in the early nineties. Antiseptics and cauterization play a great part in the prevention of the latter. To Behring and Tizzoni, two modern physicians, are due credit of these discoveries. To Lord Lister, a distinguished peer of England and physician of the last half of the century, humanity is more indebted than to any human being in modern times. He it was who gave to the

world the great principles of asepsis and antisepois in the seventies. Prior to this, countless thousands died from pyrogenic infection in various forms. Surgery was revolutionized. Before this discovery death stalked in the hospitals and especially frequented the operating room, even though the operation was brilliantly executed. With all this, infection almost invariably followed, and death as the closing scene. The woman in travail always expected a seige of puerperal fever following delivery and counted herself fortunate if she escaped the grave and exceedingly so if she missed infection. Typhoid fever raged unmolested at this time. These three instances illustrate the value of antiseptic therapeutics.

The discovery of the specific organism and means of transmission of tuberculosis, typhoid fever, yellow fever, malarial, plague and others has been of recent times and successful efforts in their prevention have been obtained. The disinfection of the excretions of the typhoid patient and care of nurses in personal hygiene prevents this. To Dr. Walter Reid of Virginia in the nineties is due credit of discovering beyond doubt the means of propagating yellow fever and through this it's prevention.

The mosquito was found, in 1891, to be the cause of malarial and to inhabit stagnant pools, marshes and swamps. The drainage of these low places was undertaken, and as a result the land has proven of amazing fertility and localities that were formally infested and resembled hospitals on an elaborate scale in fall of year, are now prosperous and healthy communities.

In 1881, Dr. Koch discovered the bacillus tuberculosis which is the specific organism of tuberculosis. From that time until the beginning of the twentieth century the best physicians throughout the country searched vainly for a curative agent for this much dreaded disease, and at last were forced to acknowledge that prophylactic measures was the hope of the world and this by means of right living on the part of the well and isolation on the part of the tuberculous patient. Much has been accomplished along this line during the twentieth century as is witnessed by the efficient National Anti-Tuberculosis League which is composed of not only the profession but also the laity.

Kitasoto found, in 1894, that the flea of the rat carried the germ of bubonic plague and by this means assisted in stamping out to a great extent this terrible disease which is more universally feared than any other disease known to man, and which has cursed the Orient for centuries.

We could not complete this heading without referring to the great means of preventing hydrophobia which was discovered by Pasteur in the early eighties. This horrible disease is prevented by inoculation of the attenuated virus and has become the recognized prophylatic measure throughout the whole civilized world. Our brethern, prior to 1850, did not attempt to prevent hydrophobia and their ideas as the treatment may be best conveyed by a quotation from Watson's Practice of Physics published in 1844, in which he says: "What can I say as to the treatment in hydrophobia? There is no well authenticated case on record that I am aware of, in which a hydrophobic person recovered. As it has been, so it is. The physician that cures is death."

We can readily see that the quarantine, rational methods of personal and public hygiene, antiseptic, aseptic, and serums are the main factors in prophylactic therapeutics. aided by the knowledge of bacteriology principally. The physician of the first half of the nineteenth century knew little of this study and were therefore excusable for not recognizing the extreme importance of prophylatic therapy. We should, however, give our professional brethern of the first half of the nineteenth century, credit for having a vague idea of the value of prophylactic measures, but they suggested no practical methods of applying them.

MEDICINAL THERAPEUTICS OR THE THERAPY OF DISEASES.

Here we find that in such conditions as typhoid fever, pneumonia, inflammations; dropsy, tetanus, diphtheria, and in fact, nearly the whole list of diseases to which the human race was heir, the chief agent depended upon was venesection. In Watson's Practic of Physic published in 1844 and Dunglison's Practice of Medicine published in the same year, I should judge that fully three fourths of these books are devoted to extolling the virtues of bloodletting, especially is this true of Watson's Practice. In their opinion venesection was the Moses which was to bring the people out of the Egypt of their disorders. Their ideas as to the application of drugs in a rational or methodical manner was, to say the least, exceedingly hazy. It will not be amiss to cite a few instances.

In typhoid and other febrrile conditions, their plan of therapy was depletion of the system by blood-letting, the administration of tartar emetic to produce emesis, repeated purging with calomel, and cold and tepid sponging. In pneumonia, copious blood-letting, tartar emetic and calomel were regarded as the sovereign remedies.

In tetanus, we can readily form an idea as to the view taken of it by a quotation taken from Watson's Practice of Physic under the head of treatment. "The treatment of tetanus is a mortifying subject among medical men." Opium was regarded as of doubtful value but to be tried. Dropsy, of any origin whatever, is to be treated without fail by venesection. and the author goes on to state he had seen a case in which as much as seventy-two ounces of blood was taken at one sitting. Diphtheria was treated with emetics' and local applications of solutions of silver nitrate, copper sulphate, and such astringements.

To the older brethern we must give the credit of the knowledge of the specific action of mercury in syphillis and quinine in malarial, and, also, the value of the application of hydrotherapy in fevers and local inflammatory conditions. On the other hand, their views of the cause and therapy of cretinism was vague in the extreme. They attributed the existence of cretinism to some substance gotten in drinking water and recommended a change of climate as a curative means.

You have been given a fair and impartial summary of the agents used in the cure of disease prior to 1850. Let us now turn our attention to the therapy of our own day. Venesection has almost become a medical curiosity, because our main object in all disease is to sustain the strength of our patient instead of depletion by blood-letting. In typhoid, pneumonia, and all other febrile conditions, stimulation by means of alcohol, strychnia, and digitalis and the adoption of a rigid dietary are the principal points in their therapy. Tetanus and diphtheria, if we are so unfortunate as to have a case to develop in spite of our prophylactic measures, are treated with brilliant results in the case of diptheria, and with increasing success in the case of tetanus, with antitoxin. In fact nearly all inflammatory conditions are being treated with serums. Cretinism is being cured with throid extract in this day. Dropsy is now regarded as a symptom and not a disease and the underlying cause is sought and when found is treated with digatalis if of cardiac origin; posassium acetate if of renal origin; and mercury if of hepatic origin. What was regarded as general debility in the early part of the past century has in the light of the modern research proven to be nothing more than hookworm (in the vast majority of cases). The older physicians gave hæmatinics and general tonics for the condition, but the patients, in a great number of cases showed no improvement, and in many cases died. Now a simple remedy like thymol rides the system of the parasites and brings back the bloom of health to the cheek of the afflicted one. In this country a large share of the credit for this knowledge belongs to a resident of our own State—Dr. C. W. Stiles.

We could not close this section without referring to the hypodermic syringe and the inestimable blessings it has conferred on mankind. With the coming of the syringe came, also, more exact and concentrated drugs. Instead of varying effect from drugs as in the first half of the century, a certain standard strength was adopted and uniform action obtained in modern times, to say nothing of being made more palatable.

SURGICAL THERAPEUTICS.

The two great factors in the development of surgery are the principles of antisepsis and asepsis and general anaesthesia. To these two agencies humanity owes a debt that can never be paid, for without these our famous and successful operators would not be able to relieve so many of suffering humanity. No region of the body now forbids the entrance of the knife. Parts that had prior to these discoveries defied the surgeon's knife and offered death as the penalty for the invasion of their sanctity can now be entered with impunity and abnormal processes remedied or removed. Chloroform was discovered in 1831 by Guthrie of New York, and sulphuric ether was used successfully by Dr. Crawford W. Long of Georgia in 1842 and was first publicly demonstrated by Dr. W. T. G. Morton of Massachusetts. Nitrious ether was first discovered by Chas. Jackson of Massachusetts. These general anaesthetics were to make a new era in surgery, but years were to pass before they obtained their greatest usefulness, because the companion of anaesthesia had not appeared on the scene namely, —antisepsis and asepsis. As I have stated, the immortal Lister in the early seventies made this epoch making discovery. If you will notice, you will see that to the physicians of the first half of the past century is due the credit for anaesthetics and to those of last part the means of preventing infections. We must admit that the surgeons of the first part of the nineteenth century were the pathfinders in surgery. Dr. Ephriam McDowell in 1809, performed the first ovariotomy, and Dr. J. Marion Simms, of South Carolina, devised the operation for the cure of vesical fistula prior to 1850. In our half, Dr. Henry Bigelow, of Boston, performed the first excision of the hip, and later devised the operation of lithalopaxy for the cure of vesical calculus. New operations followed upon the heels of each other,—appendectomy, hysteryctomy, gall

bladder surgery, brain and nerve surgery, excisions of large portions of the intestines and numerous others too many to enumerate, but all designed to cure human kind. Surgery could not reach it's greatest sphere of usefullness until the introduction of antiseptics and aseptic methods, as infection almost invariably followed operation and death in the vast majority of cases. Before 1850 and in fact up to 1870, the surgeon dare not operate unless being almost absolutely certain of death to follow. Now our modern surgeon dares to enter any organ except the heart and correct any abnormal process, secure in the knowledge that he will almost certainly obtain success, Truly our science has evolved with tremendous rapidity in the past fifty years.

CONCLUSION.

In conclusion we may summarize very briefly the development of therapeutics by comparing it with the various stages of the growth of man. The early history of therapeutics very fittingly corresponds to the new-born infant in swaddling clothes—nutured by the philosophy of that day. We next see the child, stronger than the infant yet very weak by comparison—this the therapy of the middle ages. This child gained it's sustenance from a semi-scientific source heavily tinctured with ignorance and supersiition. The therapy of the latter part of the eighteenth century and the first half of the nineteenth may be aptly compared to the period of adolescence, the source of whose nourisbment came from a broadening vision of real sctentific truths, but still highly flavored with ignorance of vital truths. The therapeutics of the latter half of the nineteenth century and what has passed of the twentieth is the strong lusty youth,—strong in his own strength and reaching out for higher and better things. Here the basis is real science. What the man will be, none of us can say. There is not a physician among us who believes that medicine has reached the zenith of it's glory. There are unknown regions to be explored, and who can say what the results will be? Methinks I see a specific remedy for every disease to which man is subject—time alone can tell. Let us remember and bear in mind, when we pity the therepeutists of days gone by for their ignorance, that physicians of days to come will likewise pity, but perhaps be too charitable to ridicule us for ignorance of what will be to them obvious truths. We have very few specific remedies at our command in the therapy of disease, and until we obtain one for each and every disorder then, and then only, can we say truthfully that our therapeutics are established on a real scientific basis.

Significance of Chronic Gastric Symptoms.*

By T. Marshall West, A.M M.D. Ex-resident Surgeon, University Hospital, Baltimore, Md., Surgeon to St Lukes Hospital, Fayetteville, N. C., Consulting Surgeon to the Maxton Hospital, Maxton, N. C.

I believe it may be safely asserted that there is no class of cases treated by the general practitioner, which is attended with greater disappointment in the way of practical results than chronic gastric disorders. In spite of temporary improvement, the cases drag on indefinately, and the phvsician continues to use palliative measures until the chance for a permanent cure has passed, and the patient finally succumbs to the disease which is the etiologic factor. Though, in the beginning, discomfort may be relieved by palliative measures. these disturbances become more and more frequent, and respond less and less readily to routine therepy; functional and structural changes ensue and the condition progresses to one of chronic invalidism. This result may be somewhat deferred for the stomach is a long suffering organ and will stand many insults; besides, there is plainly a compensatory relation existing between the stomach and intestines which answers for a time.

A little reflection will lead one to suspect that this unsatisfactory state of affairs is in some measure, at least, due to failure on the doctor's part to remember that many ills to which flesh is heir are first manifested by gastric symptoms.

First of all we wish to insist that the term indigestion does not represent a pathologic entity; it is not a disease but a symptom, and, as too frequently applied, a sort of diagnostic scape-goat. It should be placed in the same category with the indefinite terms, biliousness, torpid liver, and neurasthenia. Too often patients have been dismissed with a diagnosis of biliousness, and a prescription for calomel. Too often, when a woman complains of nervousness and various aches and pains, which we have failed to relieve by experimental therepy, we shrug our shoulders, diagnose neurasthenia, and saturate her with bromides. Of course, any patient understands us if we tell him he is bilious, and "indigestion" may be made sufficiently elastic to cover anything from a plain ordinary bellyache to gastric carcinoma. The term is too loosely applied, as a general rule, and should have no place in the physician's vocabularly in so far as it

*Read before the Fifth District Medical Assocsation at Jackson Springs, July 26th 1910, and before the Cumberland County Medical Society Sept., 13th 1910.

refers to a definite malady.

Ewald in his work on the stomach remarks: "Such terms as dyspepsia, indigestion, etc., are merely descriptive of a functional disturbance and not of a distinct disease; and, hence, today we ought not to find a physician who considers a disturbance of digestion as a seperate disease. * * * * * * An idiopathic gastritis can only be diagnosticated after ulcer, carcinoma, dilitation, neuroses, etc., have been excluded, what is left is Gastritis."

Let me say at this point that I fully appreciate the excellent work done by the general practitioner, especially in the country where he often labors under serious disadvantages. The demands of a busy practice, the lack of laboratory equipment, the reluctance of patients to submit to a prolonged examination for "indigestion" alone, when "just a little medicine for the stomach" or "the liver" is all that is necessary—these contribute largely to the unsatisfactory results attained. This paper is written as an earnest plea for more thorough and painstaking study of these cases. We can hardly be censured for insisting that a therepy, which does not attack primarily the cause is a poor system, a waste of time, money, and opportunity, often dangerous to the patient, and accompanied in the end by loss of prestige to the doctor.

The questson. therefore, is one which depends on diagnosis. The examination with a careful history should include a study of the heart and lungs, the abdomen with the object of detecting tumors or tender points, the position and size of the stomach; stomach contents, stools, urine and blood. This is a good deal to ask of a busy man, but the patient is not improving and what are you to do with him?

Just here a word regarding the relative value of laboratory methods may not be out of place. Like many a good thing the importance of the laboratory has often been greatly exaggerated. There are factors which tend many times either to discredit, or to modify the findings, and it should constantly be born in mind that the results may not be conclusive, but rather confirmatory or suggestive.

The analysis of stomach contents, for instance, has frequently proved of great value, but one analysis is not sufficient to establish a fact. The view that such examination is a fad and altogether unreliable is an illiberal view and not borne out by the practice and teaching of the best men. The laboratory has a vital place in the physician's establishment, and will pay him many times over in the results obtained. The equipment need not be expensive to be adequate and the requisite skill only such as any intelligent man may easily attain.

It is not our purpose to discuss this subject in an ultra scientific vein nor to review exhaustively the symptomatology of stomach troubles; neither shall we take up the question of treatment. Because of the limited time at our disposal, we will review in a somewhat cursory way certain well known pathologic conditions associated with gastric disorders, which may be classed as largely medical in their aspect, devoting more time to another group belonging, particularly, to the domain of the surgeon, and consequently, of peculiar significance both to the patient and to the practitioner, but especially the latter upon whom rests the responsibility of early recognition and prompt surrender of the patient to the specialist.

Most authorities, among them Osler and Albutt, follow Ewald's classification of chronic gastric catarrh; viz., simple, mucus, and atrophic gastritis. The second differs from the first in the amount of mucus secreted, while the third is the result of the other two. Whatever the etiology, the process is one of paranchy paramlymatous matous degeneration of the mucosa and certain symptoms are common to all.

Most familiar are; coated tongue, belching of gas, "heart burn", regurgitation of food, vomiting, capricious appetite, "smothering sensations," often leading to the suspicion of heart lesions.

Late symptoms include atony the stomach walls, dilitation, gastroptosis. Food ferments, diarrhoea ensues and all the results of toxic absorbtion -irritability, headache, sleeplessness, mental depression, etc. follow.

If systemic diseases or local organic lesions can be excluded, the primary cause may frequently be demonstrated to be long continued diatetic errors, as bolting of food, irregular or heavy meals, excessive use of stimulants, particularly alcohol, and general disregard of the laws of health. The duration and character of the irritant will determine the type of gastritis to be dealt with.

The gastric neuroses are not so easily recognized. There is apparently no anatomic basis upon which to rest a diagnosis but the condition seems to be associated with various abnormal states of the nervous system; reflex and psychic influences may play an active role. The patients are highly neurotic, sometimes hysterical. They complain of fullness in the epigastrium, belching of gas nervousness, etc. The tongue may be bright red and hyperchlorhydria and obstinate constipation

occompanying symptoms.

Systemic diseases are frequently back of much of the so called indigestions. Conspicuous among them is pulmonary tuberculosis. Pick up any treatise on the subject and we find that gastric disturbances are especially mentioned as a valuable diagnostic sign in insipient cases. We recall one instance in which the patient had been sent to a surgeon for operation, a malignant growth of the stomach being suspected. The man had been ailing for a year and had lost considerable weight; he presented the symptoms of a chronic gastritis, looked somewhat cachectic and complained of general malaise. After close questioning he admitted occasional night sweats and a morning cough which caused him but little inconvenience. A physical examination disclosed signs of trouble in the upper right lobe and in the apices of both lungs. The stomach was slightly dilated but about normal as to position; no tender points, no evidence of lumps anywhere. The blood picture was good. Stomach analysis showed some evidences of retention, considerable mucus, and slight deficiency in hydrochloric acid. This held true for several analyses. Tubercle bacilli a few in number were demonstrated in the sputum after careful and repeated search, thus clinching the diagnosis. The gastric disturbance and general run down condition were due to congestion of the mucosa and to toxic absorbtion. The patient's age (48), his loss of weight, cachectic appearance, and chronic gastritis were the points which aroused the suspicions of his physician. There had been no examination of the lungs, sputum, or blood; had a routine history and examination been secured appropriate treatment might have been begun earlier.

Another case in point is that of a dispensary patient who was treated for chronic mucus gastritis for six weeks without improvement, the diagnosis being made on the evidence of a test meal. The patient came complaining only of indigestion and did not mention a cough, which was entirely over-shadowed by the gastric discomfort. In this case one entire lung was involved and the sputum full of tubercular organisms. These cases simply demonstrate the pitfalls that await the man who relaxes his vigilence in any instance.

Chronic nephritis, arterio-schlerosis, chirrosis of the liver, and valvular heart lesions are likely to manifest themselves by obstinate "dyspepsia." This is well understood when the pathology is considered. In closing, it is well to mention diabetes and the various types of anaemia as furnishing a certain quota of cases. Whatever the etiologic factor, it must be discovered if success is to follow treatment.

We now pass to the second group, gastroptosis first claiming our attention; it is thus classified in the light of recent surgical technique, which seems to be based on rational principles. This condition is due to crowding of the stomach from above and is seen in slender neurotic women; men are seldom affected. Lack of exercise, poor muscular tone, and unhygienic clothing are contributing causes. The result is stretching and relaxation of the gastric supports. There is generally associated ptosis of the right kidney. The stomach lacks tone, is dilated, empties itself slowly and incompletely, food ferments and decomposes; the patients suffer from pain, palpatation, gas, vomiting, and disgust for food. They are altogether miserable and a burden to themselves and their families. Upon reflection it would seem hardly possible that the true state of affairs could long go unnoticed, especially when an examination of the abdomen and distension of the stomach with a Seidlitz powder will disclose the exact position of the viscus. Yet some of the diagnoses frequently made are nervous dyspepsia, neurasthenia, biliousness, hysteria, etc. We have seen one case treated for months for indigestion and biliousness, in which the greater curvature rested on the brim of the pelvis. The stomach was a veritable swill barrel.

The symptoms of affections of the biliary passages are often confusing and exceedingly variable. Chronic constipation and dyspeptic phenomena lasting for years are frequently the prevailing signs. Gall stone disease occurs with greater frequency in women than in men, the proportion being 3 to 1, and is rarely found in patients below the ages of 20 to 30 years while over half the cases are observed individuals past 40 (Mayo). Infectious diseases play a prominent role in the formation of gall stones, as has been clearly demonstrated by Welsh. That gall stones accompanied by mild infections may exist in the gall bladder for sometime is probably due to the fact that micro-organisms in their passage through the liver from the general circulation are either killed or their virulence greatly attenuated. The colics often met with in this condition, and often diagnosticated gastralgia are sudden in onset and subside as suddenly as they began. Pain of varying intensity is located in the epigastrium, and as a rule, extends straight across the abdomen lasting from a few minutes to several hours: no especial reference to ingestion of food: vomiting and meteorism are frequent accompaniment. Intervals between attacks may vary from

a few weeks to several years, and may be marked by complete relief or by rather mild "indigestion." It is these latter cases that are most frequently overlooked because a careful history has not been taken. The inquiry should be thorough; and especially directed toward (1) the incidence of previous infectious diseases, particularly typhoid and those accompanying the puerparium, (2) colics, (3) indigestion. As a rule, in obscure cases a physical examination gives but few hints, and the diagnosis must be made from the history. It may be very hard to demonstrate tenderness over the gall bladder, especially in fleshy individuals. So sum up, then, when a patient, especially a woman, past 40 years of age inclined to stoutness, giving a history such as is outlined above, complains of chronic indigestion with occasional pain and tenderness in the right hypochondrium, the probability of cholecystitis should not be overlooked.

Gastric and duodenal ulcer, the differential diagnosis of which is often impossible will be discussed under the same heading. According to Mayo who differs from most writers 60 per cent. of ulcers are in the duodenum, and men are more frequently affected than women while 90 per cent. of gastric ulcers are to be found at the pylorus. It occurs most frequenly between the ages of 20 to 30, but later periods of life are not exempt.

Among the dyspeptic symptoms presented by this condition are: gas, heartburn, pain and vomiting. Pain is the most constant and distinguishing feature. Localized in the epigastrium where tenderness can likewise be elicited, it occasionally radiates through to the back; it ranges from a faint discomfort to violent distress, relieved temporarily by alkalies, lavage, or vomiting. While the stomach is empty the patient may be tormented by hunger pains which are lessened for a few minutes after taking food: he may eat heartily, and the more he eats the longer he has relief. The respite is short, however, and followed by gas, sour burning eructations, and sharp boring pain lasting for three or four hours, and followed by more or less sudden relief until next time food is taken. There is generally a series of such attacks lasting for days or weeks followed by intervals of complete or very nearly complete relief: again an attack may be precipitated without apparent cause, the intervals between seizures becoming shorter as the disease progresses. These patients frequently have good appetites and eat ravenously and drink large quantities of water, the temporary relief being due to the dilution of the acid gastric contents: the ensuing discomfort reaches its acme at the height of digestion, and relief is obtained only when the acid chyme is advanced beyond the inflamed points in the mucosa. Besides HCL in excess the stomach contents may show blood occult or macroscopic; the tools, likewise, may disclose a trace or may be tarry in appearance. In either case it may escape one's notice as the bleeding if often inconstant both in time and amount.

The early recognition of gastric or duodenal ulcer is very desirable, not only in the immediate interests of the patient, but that the more serious consequences in the form of perforation, hemorrhage, stenosis with ensuing dilitation and retention, etc , and even carcinoma may be avoided.

Mayo's assertion based on a wide experience that between 30 and 40 per cent of gastric carcinomata originate in gastric ulcer should make us thoughtful. Graham of Rochester, Minn., sums up the situation very concisely when he says, "When therefore, there are attacks of stomach trouble that run in continuous periods of days or weeks or months, with more or less freedom from symptoms bearing close relation to food. and being controlled or modified greatly by diatetic measures, food, drink, and alkalies, we may justly look for ulcer of the stomach or duodenum in a large number of cases.

Having diagnosed the case, what is to be done; unless complications arise acute ulcers, (and by acute ulcers I mean those of recent origin not those recently recognized), should be treated medically. If after trial, relapses occur the case should be regarded as belonging to the domain of the surgeon. Chronic gastric ulcer and duodenal ulcer are not amenable to medical means and should be surrendered to the surgeon.' Among malignant diseases those of the stomach stand next to the uterus alone in point of frequency (Osler). If we are to reduce the present high mortality of gastric carcinoma, we will have to learn to recognize the danger signs sooner than we do now. This grave responsibility rests not altogether with the surgeon who too often gets the case when too late to render permanent aid, but in large measure on the physician, the man on the skirmish line who must detect the insidious advance of the dreaded enemy. It is of little use to spend our time in a review of the symptoms of an advanced case of gastric carcinoma; viz, tumor, cachexia, retention, lactic acid, etc., these are the "signs of lost opportunity," for as Deaver bluntly and truthfully puts it, "If you wait till you are sure of your diagnosis you will be sure of your

prognosis also."

There is no group of symptoms which in themselves allow one to make a positive diagnosis of cancer in an early stage. It is well to remember Leube's dictum: "When a patient past middle life who has never before had stomach symptoms presents with continuous disturbances of digestion be suspicious of carcinoma of the stomach."

A great many cases give a history suggestive of previous ulcer or of gastric "catarrh" followed suddenly after a long interval by marked dyspeptic phenomena. The loss of weight and anaemia is likely to be out of all proportion to the gastric disturbance. Stomach analysis is of little value and cannot be depended on at this period. Much more reliable is a carefully taken history and a thorough physical examination. Medical treatment if not promptly effecatious should be abandoned. 'It is hopeless and cannot but do positive harm, except in cases too far advanced for surgical measures.'

As in other maligant conditions the success of surgery is dependent upon an early diagnosis, and it is a well established fact, born out by the clinical experience of a large number of men, that this is very difficult, yes, well nigh impossible to make without an exploratory operation. This proceedure is fully justifiable, is comparatively safe and is certainly better than the rather dubious satisfaction of a late operation to confirm a reasonably sure diagnosis. Every days delay complicates the situation. It will almost invariably be hard for the patient to view the situation in the light of his best interest, but the great risk of delay and the comparative safety of laparotomy should be earnestly placed before him; until both patient and physician become thoroughly alive to the gravity of the situation the mortality from carcinoma will continue high.

We might prolong this discussion by a review of various pathologic conditions met with throughout the lower intestinal tract, as for instance, neoplasms, ulcerative conditions, adhesions, anatomic defects etc., a most interesting field, but time forbids.

CONCLUSIONS.

1. Chronic gastric disturbances or "indigestion" so called is not a pathologic entity, but a symptom of a great variety of troubles,

2. A careful and painstaking examination is frequently necessary before the physician can be said to have discharged his full duty to his patient.

3. Only by the exercise of greater care and patience can the lives and health of patients in many instances be preserved.

4. In malignant conditions a *posicive* diagnosis in the early stages is difficult to make; and consequently, early exploratory operation is fully justified, and earnestly advocated by leading authorities.

5. The burden of responsibility rests heavily upon the physician as the first to see the case.

A Plea for the Early Instruction of Academic Students of Both Sexes as to the Dangers of Alcoholism and its Associated Evils.*

By Virvinius W. Harrison, A. M., M. D., Professor of Materia Medica, Therapeutics and Pharmacology, University College of Medicine; Physician to the Virginia Hospital; Medical Director to the Virginia Conference Orphanage, Richmond, Virginia.

There is a viaduct which spans the river Impurity, separating women into two great classes, the pure and the impure. No woman ever passes *over* this bridge, but always *through the river* and by public sentiment is forever rendered impure. This bridge has a wide passage for men of all civilized countries so that they can go to and fro without being contaminated in the sight of the world. The impure woman may even escort her lover to the further end of the bridge' there to be met by the pure woman, who will receive his embraces and kisses of love.

As long as this double standard of morality is allowed to exist, just so long will there be unhappy marriages, divorces, murders and suicides.

I hope to recall to your minds in this paper the dangers of intemperance and impure living, and then try and find its place in preventative medicine.

INTEMPERANCE.

The abuse or even the use of alcoholic drinks is one of the worst, if not the worst evil of college life. The use of alcoholic beverages is entirely unneccessary in the young. If a boy has to use wine to make him an agreeable fellow his companins had better find some one who is worth something in himself. Fraternity and college banquets are sometimes the places at which some young man may start down the hill of life to end in a drunkards grave and a soul lost for eternity.

We as medical men, teachers, church officers and as men who know the family history as none, not even the ministers of the gospel know, have an oppor-

*Read before the Medical Society of Virginia, Norfolk, Oct. 25-28, 1910.

tunity that is our most important duty to utilize, and the sooner we realize it and go to work, the sooner will there be more happiness in the world.

I believe the immoderate use of alcohol will ruin the mental, physical and moral life of the young, without these there can be no higher life. Now I will try and prove what I have just said.

The physiological action of alcohol on the brain and nervous system is at first to stimulate their action, thoughts may flow freer, for a time only, soon depression of the brain follows, so that it requires a larger quantity of alcohol to produce the same amount of stimulation, until finally there is no stimulation, all is depression. Sooner or later the brain and nervous system become diseased, memory is impaired, and the capability of doing good work is lost.

The immoderate use of alcohol will irritate the stomach, its continued use will produce catarrh of the stomach, constipation, inactive liver, irritability of temperment, and always has associated with it in 50% of the cases, nephritis. Many other conditions are found as the result of alcoholism, but these will suffice my purpose.

A later part of the nervous system to be depressed is the sexual center this remains stimulated after the brain has become depressed, ideas perverted and bad baragins are made, so that the young are more easily lead to the houses of ill fame, which is the last danger of intemperance to which I will refer.

THE DANGERS OF VENEREAL DISEASES.

Every man who has illicit connection with a woman accompanies her that much nearer hell, a suitable companion if he is striving for that place for his eternal home. He must remember he is responsible for his own sin, and the double sin in sending her that much further away from purity, this should be sufficient to make the young shudder and turn their back on such a life, but experience teaches us that moral teaching will not be sufficient, and we must show them physical dangers to gain their attention.

We will have to picture to them all the horrors of syphilis, about which the young have heard and fear, but gonorrhoea, spoken of in college paralance as "no worse than a bad cold," is not dreaded, for he goes to the nearest drug store for a quick cure, and if the discharge stops soon he considers himself well and takes it as a joke.

The young not being informed as to the dangers of this one disease has been the cause of much suffering, not to say death.

When they are told that gonorrhoea is not cured always when the discharge has stopped. that it is communicated to others by means of towels, cigarrettes (for the fingers of one who has this disease are never clean); blindness may occur by lack of cleanliness. That the germ of this disease may remain latent in his urethra for years, and after he is married may contaminate his wife, even before the honey-moon is over, and possibly send her to the surgeon to be unsexed, or some other operation to save her from death or a miserable life as an invalid.

If his wife should be so fortunate as to become a mother, the child may become infected and lose its sight. Fifty per cent of the blind in our institutions are there because of gonorrhoea.

We must also teach the young that gonorrhoea sometimes produces stricture of the urethra, necessitating surgical treatment for its cure, this same disease may travel further and incapacitate him from becoming a father, practically unsexing him. Then tell them that very few of us will be willing to give a clean bill of health for matrimony until several negative bacteriological examinations have been made of the contents of the urethra.

All I have said is every day knowledge to you, and some of you know more of the necessity of this teaching than others, but my hope in presenting this paper is that we use our knowledge to prevent such dangers as I have very briefly and very incompletely described. If ninety per cent of the operations on the genitals of females are the result of gonorrhoea; if fifty per cent of the blind in our institutions are there from the same cause, if untold suffering in chronic invalidism is the price paid by a large number of men and women who are not counted in the above listr if all can be prevented, and we know how to educate the people in these matters who in many instances are ignorant of the risks they are taking, *is it not our duty* to get to work and give the matter the attention it deserves?

I admit it is a delicate matter to handle, but it can be done, and it must be done to insure the safety of home, society and the country at large.

I advise that every college should have lectures to the students on sexual education, the dangers of the use of alcohol because if for nothing else the danger of the evil of contracting venereal disease. Parents should be instructed so that they could teach the young even before they enter college.

This matter should be brought to the attention of female students, by female teachers, so that they too may be aware of the

dangers, it will save some of them from contracting the disease, or if contracted they will know the importance of being treated and cured. (?) It will further be a warning to them as to the company they keep and also to be on guard as to who they will marry. Some of the men who drink freely, and are known as wild may find it a little harder to find the girl who is willing to risk the chance of being infected in order to reform them.

If parents were instructed in these matters they would ask more questions in regard to their future son-in-law, they would not be satisfied to know that they could take care of their daughter in a financial way, or only to know that the social standard was up to par, but they would require satisfactory evidence that he was free from venereal disease.

So important is this subject the following report was adopted by the American Public Health Association at its last meeting.

Journal A. M. A., Sept., 24th 1910.

1. The recognition, study and control of the prevalence of these as with all other communicable diseases, in order to ascertain their distribution.

2. An educational campaign for parents of all social classes, and children of all ages and sexes. The teaching should not only be moral but also medical in the widest sense.

(a) Proper distribution of circulars, pamphlets and other literature by state board of health departments through all suitable channels.

(b) State health departments to instruct all of its local health officers in sexual matters, and direct them to make a systematic effort to educate the people in their respective communities.

(c) State health departments to make a definite and determined effort to awaken and interest the medical profession in this fight against venereal diseases.

(d) State department to send out specially trained paid teachers and lecturers of their own, supported by exhibits and lantern slides to address special meetings of parents, health officers, medical men, teachers and others in schools, colleges, churches, etc., on these and other preventable diseases.

(e) State departments to encourage the organization of local leagues or associations whose purpose it shall be the support of and control of a crusade against the spread of all communicable diseases, said societies to include every profession and walk of life; to depend on philanthropists for the necessary funds, rather than on paid subscriptions for fundimental support.

(f) Health departments to interest and provide for the authorities having charge of the educational curriculum in public and private schools (1) by introduction of biology into the graded course of all schools, (2) ts provide instruction in sexual matters for the students of the upper grades, (3) by special instruction to normal school students who are to become the instructors, to impress on presidents, deans, preceptors and teachers the necessity of exercising their influence on the students in reference to the communicability of syphilis and gonorrhoea and to inculcate a morale of protection among college fraternities.

(g) To utilize the public press for the proper occasioal presentation of the subject and to discourage the display of advertising matter which encourages the exposure to the dangers of these diseases.

(h) To utilize church clubs, fraternal societies, trade unions, women's clubs and especially mother's clubs for the instruction of parents.

(1) Health departments to reccommend the enactment of laws for, (1) physical inspection and segregation of prostitutes, (2) notification and report (by number if desired) of venereal diseases, (3) physical examination before marriage, male applicants for marriage license in order to obtain it being required to submit to an examination by a duly qualified physician for the purpose of ascertaining whether the said applicants are free from venereal diseases, (4) to make it a crime to spread any venereal disease, (5) by keeping open free night dispensaries and the maintenance of special dispensaries and hospitals for these diseases.

(j) Advocacy of temperance on account of the relationship between alcoholism and venereal diseases.

(k) Advocacy of personal cleanliness and venereal prophylaxis. Advocacy of early marriages.

401 N. Allen Ave.

The Relationship Between Certain Obscure and Chronic Stomach Disorders and Diseases of the Gall Bladder.*

By F. T. Merriwether, M D., Asheville, N. C.

This paper which is a rather incomplete one, deals mostly with a few suggestions along lines that have often been very puzzling to me and in main deals with a few points relative to clearing up the diagnosis and treatment of symptoms that are usually supposed to indicate disease of the stomach.

The general practitioner knows and realizes that the most difficult and unsatisfac-

*Read before the North Carolina Medical Society, June, 1910.

tory class of cases to treat successfully are those of the so-called functional diseases of the stomach, the most disheartening to the physician and to the patient, so far as results are concerned, the patient usually drifting from one to another without anything being really gained.

These are the cases that make up the crowd that fatten the purses of the manufacturers and selling agents of the patent medicines, and the various forms of alcoholic stimulants sold under different trade names and those that contain narcotics.

We have all treated cases of what we call dyspepsia or indigestion with no avail, trying one medicine after another and this and that diet and yet doing no good.

Now while I do not mean to say that all these undiagnosed or unclassified obscure and chronic apparently incurable functional diseases or rather supposed diseases of the stomach are due to diseases of the gall bladder, I wish to call your attention to the fact that many of them are not caused by the stomach, but rather by diseased conditions primarily of the gall bladder and duct, and by the accompanying interference with the functions of the pancreas.

The group of symptoms usually supposed to be peculiar to stomach diseases, we now recognize as being due in almost every case to disease or lesion of the gall bladder, appendix, pancreas, and duodenum.

I do not mean to say that all of these cases should be turned over to the surgeon for operation, but many of them, a large majority will, by careful and frequent examinations and close observation, be found to have symptoms pointing to some positive disease or lesion somewhere in the right upper quadrant of the abdomen.

In many cases the symptoms are caused by old adhesions from ulcerations of the stomach and duodenum, to the gall bladder or pancreas these adhesions being very dense and thick, though often they are very slight, but a large number of them are due to a more or less ascending chronic pancreatitis due to a gall bladder disease or gall stones.

The benefit obtained by operations upon these cases is often very gratifying.

It is recognized that the pancreas is the most important organ of digestion, and unless its functions be carried out, disturbances of the digestive metabolism must follow, and nutrition very much interferred with.

It is a well known fact that pancreatitis may be caused by an ascending simple duodenal catarrh, but most of even these cases are due to the accompanying swelling of the papilla and common duct, causing the damming back of the bile and its consequent irritating effects upon the pancreas.

Flexner has shown that the injections of purified bile salts into the pancreatic duct will cause gangrene of that organ.

It is quite conclusively shown that the most common cause of chronic pancreatitis is gall bladder disease or gall stones.

Deaver says that "there is no doubt that its most frequent cause is some interference with the free discharge of the pancreatic secretion, either associated or unassociated with an ascending infection. As by far the most common cause of such obstruction is the lodgement of a gall stone in the Ampulla of Vater or other parts of the common duct, the frequent association of the condition is at once explained."

The Mayos state that eighty-one per cent. of lesions of the pancreas are either due to or associated with biliary calculi.

Probably from eight to ten per cent. of all gall bladder cases show involvement of the pancreas, certainly in approximately 50% of the cases of chronic pancreatitis the cause lies within the gall bladder or the biliary ducts.

It has been said the early symptoms of gall bladder disease, gall stones, etc., are not marked, and that only in the late stages of the disease do we get symptoms, or can we make a diagnosis. Therein we make a mistake, for I believe that from the first the very earliest symptom should point to the diseased gall bladder and to the accompanying pancreatitis, if any, and the symptoms which we too often refer to the stomach should at least make us suspect this trouble.

Post mortems on 10866 cases in Germany show that about 10% of all cases of patients dying in the public hospitals have gall stones, and probably 5% more have chronic gall bladder disease.

As Moynihan says "the most common symptom of all gall stones is indigestion"; and to that may be added, the first symptoms of all gall stones and gall bladder disease are those of indigestion. It is astonishing the number of cases of gall bladder disease, for gall stones are but one of the results of a diseased gall bladder, that are called epigastric pain, flatulency, neuralgia of the stomach, gastric catarrh, etc.; due primarily to cholecystitis or gall stones and the function of the pancreas.

The stomach symptoms are often temporarily relieved by an attack of nausea and vomiting which is mostly reflex in character.

It is said that many of our cases of functional stomach disorders are due to diseased conditions of the gall bladder, though none

of the patients and very few of the physicians connect the two.

Unfortunately jaundice is associated with gall stones and gall bladder disease in the minds of most physicians and often of surgeons, and yet jaundice is a rather rare symptom.

Moynifan states that jaundice is found in only from one to two per cent. of the cases of cholecystitis, and probably in not more than 10% of the cases of gall stones.

It is true that bile may be found in the urine early in many cases and that the whites of the eyes may show a slight tinge of yellow, but the staining of the skin is usually absent except in far advanced cases or where malignancy is present.

Hamel's test is serviceable in these obscure cases. It is made by collecting a small quantity of blood from the lobe of the ear in a capillary tube, and allowing it to stand for a few hours. The serum which collects in the upper part of the tube is normally clear, and will show even a slight trace of jaundice, if present, by the coloring of this serum.

The color of the stools also may indicate interference with the secretions of the liver, though it has been proven that it is the pancreatic juices that color the stools and cause the brown and the dark brown movements, the bile salts and acids only coloring them yellow.

Riedel states that in 100 cases of gastric colic (stomach cramp) 97 were due to gall stones.

I will not go into the diagnosis of gall bladder disease nor the differentiation between it and the stomach, but will merely speak of a few points of value.

The location of a tender spot in the right side of the spine at the level of the tenth dorsal vertabra about an inch external to the vertabra, is a sign of extreme significance. Sometimes this tender spot is as low as the 12th dorsal vertabra, and almost invariably in gall bladder disease the difference between the right and left side is very noticeable.

Functional and organic stomach diseases have a positive relation to the ingestion of food, whereas in gall bladder cases there is no such relationship.

Pain usually comes on at times that cannot be connected with the time of eating, and in a majority of cases, particularly in the first attack of gall stone colic, it is at or about midnight.

But even pain is not a very frequent symptom of disease of the gall bladder, for many cases do not complain of anything more than soreness, or possibly an aching over this region, and some do not even have that.

Tenderness on deep pressure under the ribs and upwards during a deep inspiration is usually found present, the tender gall bladder coming into contact with the examining fingers.

Hyperchlorhydria, which has been shown to be present in most cases during the two or three days preceding the attack, causes the patient to feel better and usually well during that time, whereas in true disease of the stomach an attack of indigestion is usually preceded by a gradual loss of function of the stomach culminating in a cessation of digestion and the presence of colic.

But almost invariably even these cases are due to some positive lesion and not to what we call functional disease which is a misnomer, much as the old so-called cases of idiopathic peritonitis we had twenty-five years ago.

There are a very few functional diseases, possibly none, as we usually understand the term, for all diseases have a cause, and it is only by recognizing the cause that we can cure the disease. In operating upon these cases an apparently normal gall bladder from external examination will often be found to have its mucosa studded with small crystals, which are minute gall stones, and which keep up the catarrhal condition which interferes with the pancreatic functions.

Breaking up the old adhesions around the gall bladder and pancreas, particularly these cases that have the fine adhesions called by Morris "gall spider adhesions," fine adhesions like a spider web, relieve the tension which disturbs the circulation of these organs. This and draining the space around the pancreas, and the duodenal space will work wonderful cures in certain cases of disturbed digestive function, even when the gall bladder is otherwise apparently normal.

If the gall bladder be diseased, whether with or without stones, it should be drained either externally or into the intestine by a cholecystenterostomy. Of course if gangrene or other conditions are present cholecystectomy, removal of the gall bladder, may be done, but the consideration of these conditions are foreign to my paper.

Even in a chronic pancreatitis, with apparent gall bladder disease, this drainage will cure the existing disease, allowing bile to either pass into the duodenum or externally, removing the irritation which causes the loss of the function of the pancreas.

The importance of the personal observation of the attending physician at the time of the operation upon such obscure cases is almost invaluable, and will aid him in making correct diagnoses in his future work in uncertain cases more than anything else

unless it be a post mortem.

Few physicians take advantage of this, but the opportunities should not be lightly thrown away.

By such opportunity we can always increase our skill in diagnosis, and that is really the foundation and basis of the practice of medicine and surgery, and that is for the physician and surgeon alike. There is no doubt but that the best education for the surgeon is general practice, and for the abdominal surgeon general surgery.

Cerebral Malaria—Report of Cases.

J. F. Patterson, M. D., New Bern, N. C.

During the past summer it was my good fortune to see several cases of cerebral malaria—cases which were both very interesting and instructive to me. Believing that this type of malaria is more prevalent than supposed leads me to report; some of these cases.

Cerebral malaria is usually subdivided into th efollowing types :

1. Comatose.
2. Motor Irritative or Epileptic.
2. Motor Depressive or Paralytic.
4. Delirious.

As can be seen from the above subdivisions the symptom complex of the disease is extremely variable and may emulate almost any cerebral disease, in some cases the simulation being so exact the differentiation being extremely difficult.

Comatose Type.

The comatose type is the most prevalent. The cardinal symptom being the coma, which may be of varying intensity and duration; it may last only a few hours or several days. The coma is usually sudden its onset beginning with the paroxysm, again it may be more gradual, being preceded by various psychic disturbances such as somnalance or confusion—it rarely ever occurs with the first paroxysm, this being also true of the other types of cerebral malaria, a history of several preceding paroxysms being obtained. In a majority of cases the coma is quite pronounced—there being no response to questions or skin stimulation. A characteristic of the coma is slight fibrillary twitching of the muscles of the extremities—the eyes are usually closed—the lids being slightly resistant to attempts at elevation—the eyes are usually rotated upward—pupils equal and slightly dilated and reacting. The pulse may either be fast or slow—respiration slow and stertorous, or fast and shallow. So the symptom complex being extremely variable, and the positive diagnosis resting upon the finding of the plasmodia in the blood. The temperature is usually high—varying between 103½ and 105° F., or it may be of the remittent type, the latter not being usual, though the skin is usually hot and dry—tongue dry and coated with a brownish white fur. The coma usually subsides with the beginning of a diaphoreses but in some cases it does not—instead, becoming more and more pronounced until death, which usually results from pulmonary oedema.

The following case will illustrate this type :

Mrs. X., age 53, was seen by me at 7 P. M. on the night of October 9th, 1910, when she was in a profound coma—respirations being 25 per minute and quite stertorous—the pulse was 140, weak and intermittent—skin ashy in color and dry—eyes closed—eye balls rotated upward and moving slightly from time to time—pupils equal, slightly dilated and responding to a light—temperature 103° F. The coma was quite profound neither questions nor skin stimulation arousing her in any degree.

The following history was given by relatives: She had been ill for the past six weeks; first suffering from gall stones—for the past two weeks she had been under the care of an osteopath; her symptoms all this time being pronounced nausea, the nausea being peculiar in that it was worse always on alternating days—at which times she had what was supposed to be a "nervous attack"—upon close questioning their supposedly "nervous attack" was learned to commence with a feeling of coolness, then a hot period of several hours duration, during which patient was intensely nauseated and nervous, this being followed by diaphoresis, and subsidence of the nausea. For the past 36 hours the urine had been scanty, and a diagnosis of uremia had been made by the osteopath.

At noon upon the day upon which she was first seen by me, she had another of these paroxysms—shortly afterwards she became comatose and when seen by me at 7 P. M., she was profoundly unconscious.

A specimen of urine obtained by catheterization revealed a small amount of albumin, but no casts—the urinary findings being those of a febrile albuminuria.

A blood examination revealed numerous parasites of the malignant tertian type—most all of them being extra corpuscular.

At 8 P. M. 12 grains of bimuriate of quinine and urea was given hypodermically—as also was 1-40 grain of strychnia. At 11 P. M. 6 grains more of quinine and thereafter 6 grains by hypo every 3 hours. At midnight patient showed signs of regaining consciousness, at 1 A. M. she had completely aroused and asked for a drink of water. The convalescence from then on

was uneventful, there being no return of the tertian paroxysm, the nausea completely subsiding, the urine becoming normal.

The quinine was kept up for 72 hours, her sole treatment in addition to this being large doses of calomel, 20 grains in all during the first 24 hours. Strychnia gr. 1-40 per mouth three times a day.

This case closely simulated uremia, the scanty, albuminous urine and pronounced nausea being quite indicative. The differentiation was made upon (1) the blood picture, (2) the history of the previous malarial paroxysms, (3) pupils being dilated instead of contracted, as is usual in uremia.

Motor Irritative.

In this type while the motor symptoms predominates, coma of varying intensity is also a symptom—the motor symptoms may vary from twitchings of the muscles to clonic convulsions; in some cases the convulsions being so pronounced that uremia, hysteria or tetanus is simulated. The case that I am to report so closely resembled hysteria that at a first diagnosis of that disease was made.

Mrs. B's house-girl, a negress, about 21 years of age was found by her mistress unconscious in the living room at about 6 p. m., Oct. 1st. When I arrived I found the girl in a coma, lying on the floor. She was rigid, eyes closed, lids resistant to opening, pupils dilated but responsive, eye balls turned upward, pulse 120. Coma pronounced; the least stimulation caused clonic movements of the extremities. While making my examination she had a clonic convulsion which lasted about 30 seconds. No history was obtainable. A diagnosis of hysteria was made and I suggested moving the girl home, this was not done as her address was unknown, so instead she was carried to the hospital; there a more thorough examination was made but nothing was found to change my diagnosis. During the night she was extremely restless having numerous clonic convulsions, although ¾ grain of morphia had been given. I may state that it was impossible to take her temperature by mouth or rectum owing to her extremely nervous condition, for the same reason attempts at catheterization were failures.

On the morning of the following day her condition was practically similar to the night before, coma quite pronounced, motor irritative symptoms just as marked as before. Pupils still dilated and reacting, eye balls rotated upward. About 5 p. m. she became somewhat relaxed, bowles moved involuntarily—temperature was taken and found to be 102 2-5° F., pulse 140, extremely weak and intermittent. A blood examination was now made, malaria plasmodia found, and her condition recognized as cerebral malaria. At 6 p. m. 12 grains of quinine was given hypodermically, and thereafter 9 grains every 4 hours. Olei tiglii drops 4, was also given.

The following morning, October 3rd, when seen by me at 9 a. m., patient had completely aroused from her coma—motor symptoms had completely disappeared, temperature was 99° F.. pulse 100—she did not recall anything since the afternoon of the 1st. She stated that in the past two weeks she had had several chills. Her convalescence was uneventful, she being discharged from the hospital on the 5th inst.

The age of the patient, her sex, and the symptom complex so strongly suggested hysteria that I feel that my error or diagnosis was excusable, although I made a mistake in not making a blood examination earlier.

Motor Depressive or Paralytic.

This form may present a paralysis of a monoplegic, poraplegic, or hemiplegic type, the paralysis usually commencing and subsiding with the paroxysm, although in some cases the paralysis remains for several days after the paroxysm, in this type also, coma is a pronounced symptom.

This form of cerebral malaria is extremely rare, the hemiplegic type being the most prevalent, and Landouzy states that he has been able to collect only twelve cases of this type in all literature.

The case which I am to report is of the hemiplegic type—the hemiplegic remaining for 48 hours.

Mrs. P., age 65, an unusually well preserved and active woman for her age. Upon June 12, 1910, had a malarial chill, on June 14th, another; I saw her on this day. When seen by me her temperature was 103½° F., pulse 110 full and regular, tongue coated, skin flushed, hot and dry. She was given 10 grains of calomel, 5 grs. quinine per mouth, ordered every 4 hours, and responded nicely to treatment, and on the following day was a febrile. Upon June 16th, about noon she had another chill; I saw her at 4 p. m., her temperature was then 103° F;., her pulse 90 and full, she seemed confused, speech was thick and slurring. At 8 p. m., when again seen by me she was profoundly comatosed complete paralysis of right side of face, arm and leg, breathing stertorous, rate 18 per minute, the right cheek flopping with each expiration, pulse full and bounding, 74 per minute, color ashy, eyes closed and deviated towards left, pupils contracted.

Her right arm and leg were completely paralyzed, dropping limply when lifted and

let go; temperature was 104 1-5 per rectum. Inability to swallow liquids. A blood examination revealed maleria plasmodia in abundance.

Quinine, grains 6, was ordered to be given hypodermically every 4 hours. October 16th, condition practically same. Hemiplegia still marked, respiration still stertorous, morning temperature 99° F., pulse 96°, respiration 18, during the day bowels moved involuntarily, that night she responded slightly from her coma, was able to swallow, calomel grains 10 being given. October 17th, coma becomes less marked during day as did her hemiplegia, and by night there were no symptoms of paralysis at all, she being able to move both arm and leg at will. Reflexes being equal on both sides. Pupils were normal in size, temperature varied from 99½ to 100 3-5° F. From then on she made an uneventful, though prolonged convalescence, because of a pneumonia which developed on the 20th. Quinine was stopped hypodermically on the 19th, for a week following she received 5 grains per mouth three times a day.

An interesting part of her convalescence was the fact that she remained confused for about four weeks. After the 17th, 48 hours after onset, there were no symptoms of paralysis, upon recovery gait was absolutely normal, reflexion both sides equal.

This case so closely simulated an appoplexy because of the age of the patient that I had small hope of the cerebral condition being due to malaria; but thought possibly that there was a cerebral hemorrhage resulting from the elevated blood pressure, but the rapid response to quinine, and the complete recovery without the hemiplegic sequela shows that the case was undoubtedly one of cerebral malaria,

Delirious.

In this type the psychic disturbances dominate the clinical picture. I have never seen a case to recognize it; although I now recall a case probably of this type in which a diagnosis of Bell's Delirium had been made. This case was seen about two years ago, the patient a woman of about 40 years was suddenly stricken with a violent delirium, at times fighting, shouting and using profanity. I could not find any cause for this delirium, the various organs being negative, her temperature varied between 102½ and 105° F. She died on the fourth day. I neglected to make a blood examination.

The prevalence of cerebral malaria makes it imperative that in all cases of coma in malarial districts, that malaria should be considered as a possible cause.

Elks Temple—Rooms 201, 202, 203, 204.

Pope said, "The learn'd reflect on what before they knew,"

As the winter approaches, conditions prevalent with the season will present themselves for the consideration of the physician.

At this time it might be well to recall that Antiphlogistine, applied thick and hot will offer unmeasurable relief in those cases of Bronchitis, Tonsillitis; Laryngitis; Pleurisy and other throat and chest affections you will be called upon to treat.

Satisfactory therapeutic results invariably follow the application of Antiphlogistine and to guard against substitution, it is well to specify an original package, thus protecting your patient as well as yourself.

Heart Spells of the Aged.

"For the heart spells of the aged, such as palpitation or sudden weakness more or less dependent on the arterial condition, Cactina Pillets is admirable and can be administered without the slightest fear of untoward action."

Normal Secretions.

"Prunoids produce their results by stimulating normal secretions, rapidly increasing the fluid content of the feces and gently increasing peristalsis. They are extremely palatable, easily taken by even young children and when brought in contact with the secretions rapidly disintegrate and produce their specific medicinal effect."

Cathartics and Purgatives.

"The evil effects arising from the indiscriminate use of cathartics and drastic purgatives, generally brought on by the pill habit, and for which the patient is most frequently responsible, is well known to every practitioner. Drastic cathartics, while producing the effect which the patient thinks is desirable, leaves the secretory functions of the liver in an enfeebled and exhausted condition, so that a return to the constipated state is certain. In such conditions the physician will find Chionia a most valuable assistant, combining the remedy with an occasional cathartic when indicated and gradually diminishing the dose of the cathartic employed."

Carbonated Waters.—For the purpose of clearing up existing doubts as to the therapeutic effects of bathing in natural carbonated waters on the circulatory system, the author conducted a series of experiments in which the resulting changes in the blood-pressure and pulse-rate were recorded with scientific precision by the graphic method. The conclusions reached were as follows:—

Bathing in natural waters laden with carbon dioxide may either augment or lower the blood-pressure, according to the individual and the temperature at which the bath is taken. In subjects with high vascular tension the pressure is generally lowered, while in those with low tension it is generally raised, provided in both cases that the bath is at a suitable temperature. The concomitant action of the different factors which influence the blood-pressure is so complex that the discrepancies of effect observed clinically are readily to be accounted for by the predominance of one or other of the factors in different individuals. Slowing of the pulse is produced in all cases, whether the pressure be raised or diminished. The therapeutic effect is exerted in the period of diastole, which is prolonged. The effect persists for several hours after the bath, thus bringing about an improved state of nutrition in the myocardium.

On the whole, bathing in carbonated waters may be considered as a distinctive hydrotherapeutic procedure, exerting an action of the same nature as that of the ordinary cold bath, but with less shock to the nervous system.—Wybaune Journál medical de Bruxelles.

Frederic S. Isham, the novelist, writes probably the worst "copy" in existence, and hereby hangs a tale. Before starting for the Orient, Mr. Isham sent a portion of his new novel, The Social Bucaneer, to a certain firm of young women in New York who are especially trained to decipher the uncipherable and transcribe an author's chirography in neat typewriten manuscript. Mr. Isham's bundle of "copy" came back with regrets. Wouldn't the author make it just a little bit more intelligible? The author wouldn't; he had to sail, and he went. It wasn't the first time the young lady typewriters had thrown up their hands in despair over what he had left with them. The surprise came at Shanghai. The author asked for a typewriter; he was directed to one Lee See Sung, a mission convert. At least he had an angel smile. Yes, he could write English; he understood it very well, though his speaking knowledge seemed to imply definite limitations. Mr. Isham left a goodly installment of the manuscript of The Social Bucaneer with the heathen; at least, he thought cynically, his copy would not fare worse in the Orient than it had done at home. In about a day Ling See rang him up at the Astor House (a very primitive House) and informed him the work was finished. The novelist could not believe it: he had calculated the task would take a week. When Ling See came around the author opened the bundle of typewritten matter with more than the usual misgivings. To his astonishment it was letter perfect. "How in Heaven's name did you do it?" demanded the surprised novelist. Dloo whatee?" asked the bland Celestial. Make it out—read it?" "Oh," said Ling See in pidgin dialet, "any one who can read anything." And gratefully, with his angel smile, he presented a bill for about one-tenth the usual fee. You see he belonged to a country where they laundry a man's dress shirt beautifully for four cents—and where you can get it done for three.—The Bobbs-Merrill Company, November, 1910.

"How'd you happen to make that mistake in The Social Bucaneer?" Frederic S. Isham, the novelist, was recently asked by a friend.

"What mistake?" said the author wearily, well knowing what was coming.

"Why, 'bucaner.' It should have two 'c's,' of course. Too bad it happened wasn't it?"

"It isn't a mistake," said Mr. Isham with the languid interest of a man who had answered the same question a hundred times.

"Bet you a"—And the friend named a sum.

It was a shame to take the money, it was so easy. The author led the way to the public library, called for the Century dictionary and pointed to "bucaneer" spelled with one and two "c's," but with one "c" given the place of preference. "And," adds the novelist, "as far back as 1684, there was published in London a book called 'The Bucaniers of America.' Don't know whether they bore any resemblance or not to my bucaneer."—The Bobbs Merrill Company, November, 1910.

Removal of the Frontal Bone for Septic Osteomyelitis.

C. J, Symonds reports a case in which the infection followed chronic suppuration of both frontal sinuses, and existed before operation. In a series of operations the frontal bone was removed, together with a part of the sphenoid, the roof of the right orbit and its inner wall, and the orbital ridge. On the left side part of the orbital ridge was left. The case was shown as an example of a rare complication, and as a recovery from a grave condition of infection. The other point of interest was the reconstruction of the greater part of the frontal bone and the consequent restoration of the forehead. On the left side of the frontal sinus had been operated upon by the method of Watson Williams with no perceptible scar.—Royal Society of Medicine.

Charlotte Medical Journal

Published Monthly.

EDWARD C. REGISTER, M. D., EDITOR

CHARLOTTE, N. C.

MR. FLEXNER'S CARNEGIE FOUNDATION REPORT.

No volume dealing with any subject of interest to the medical profession has ever created as much comment as this one that is now before us.

It is always well enough to have high ideals when interested in any kind of an enterprise; especially is this true when a corporation undertakes the technical training of professional men. The necessary equipment and enviroments to do this responsible work cannot be too elaborate or too complete. While this is true, it does not prove that small medical colleges with small classes, with appropriate but small equipment cannot graduate capable and well qualified young physicians.

Mr. Flexner's ideal medical college is seldom found, because it can only exist under very extraordinary circumstances, and in a very few localities. He is of the opinion that a medical college ought to be closely connected, or identified with a large university, so that medical student can in part keep up his literary studies, and combine with them his technical training, This idea, while good, does not appeal to a large per cent of prospective medical students. The most of them prefer completing their literary training prior to the taking up of the study of medicine. This policy has always appealed to the writer more than Mr. Flexner's plan.

Mr. Flexner's suggestion in reference to preliminary literary education for prospective medical students is quite acceptable to all who have intelligently studied the present situation throughout the country. A great many states have already, legislative enactments regarding this suggestion of Mr. Flexner's. The medical profession of North Carolina are almost unanimous in their desire that the approaching legislature amend our medical laws in such a way that all applicants coming before our examining board will be required to exhibit a satisfactory certificate of their literary training before they can be eligible for the examination.

If this enactment is secured it will be a great help to the medical profession of this section of the country and a protection to our medical colleges in the Southern States.

Mr. Flexner says, that only a few medical colleges have sufficient clinical material for teaching purposes. This statement would have been much more accurate if he had said that only a few medical colleges in this country have not sufficient clinical material for teaching purposes. There has been a tendency for the last few years among medical colleges to pay too little attention to the theoretical study of medicine, and devote too much time to clinical and laboratory studies. The study of the principles of medicine and surgery should be considered the most important branches taught in medical colleges. We do not want to create the idea that we depreciate the importance of laboratory and clinical teaching in colleges. These branches are important but not the most important. The writer has observed repeatedly the methods of medical colleges in this country and other countries, and is of the opinion that the large college does a great deal more defective clinical work, from the students standpoint than the smaller college where personal attention can be given the student by the teacher in charge. To sit in an amphetheater among seven or eight hundred students and look at an abdominal operation through opera glasses, is as worthless as it is tiresome.

There is another thought that Mr. Flexner overlooked, possibly because he is not a physician; that was, the necessity of medical colleges in different sections of the country. Medical institutions located in the different sections of the country, furnish facilities for young medical men to learn something clinically of certain diseases and their irregular manifestations that are peculiar to that particular locality. Mr. Flexner evidently does not know how important this is.

It seems that the writer of this well advertised volume depreciates Southern and Western institutions especially. He cannot see any good in them, and exhibits in this report, many evidences that it would meet with his approval if they were out of existence.

The author of the volume believes that all medical colleges are disreputable and are run for commercial purposes that have to depend, or partly depend upon their earnings for existence. He gives them the name "Commercial Colleges." His condemnation of them is so autocratic, so full of unreasonable prejudice and so untruthful that the most of his assertions and opinions will have no influence at all with the public. His prejudice and unfriendly attitude toward this class of colleges instead of being constructive is very regretably destructive of worthy enterprises that are doing much to benefit mankind. Apparently he wants to retard medical development in certain sections of the country. It

would have been much better if he had exhibited a willingness to help small colleges by friendly suggestions and words of encouragement.

In reference to commercial colleges, Mr. Flexner ought to know that every institution in this country, regardless of its character, displays many evidences of commercialism in some form or other. To illustrate: Any one can see in the lobbies in large medical colleges, conspicuously displayed, numerous notices of private instruction in surgery, clinical courses in gynaecology and diagnosis, quiz courses, and a thousand other ways to induce medical students to part with their money. If this is not commercialism, we do not know what it is. It is rather amusing, when a medical student in one of Mr. Flexner's institutions shows any inclination to take a private quiz or a private course in any of these numerous departments, to see how the professor, at his first interview with the student, displays his beautiful certificate, all decorated in red stamps and ribbons. This makes a great impression on the student, and he immediately parts with his twenty-five dollars, takes the private course, gets his beautiful diploma and is apparently satisfied. This is not the worst example of commercialism that can be seen in most of the large colleges. We have in mind the methods of the clerk in the office, who is usually a teacher in the college, occupying a subordinate position. Frequently he will offer members of the gradugting class, the next day after their final examinations, to find out their grade for five dollars, thus relieving the student of a weeks anxiety. This proposition appeals very much to the prospective graduate and the most of them pay their five dollars willingly. Of course it is natural to infer that the officials of the college know something of this transaction.

The large majority of physicians and surgeons who are engaged in teaching in the South and in the West, do it willingly, and intelligently, and at a great financial sacrifice. This noble inclination among the members of our profession in this section of the country should be encouraged instead of being ridiculed. The writer knows of a great many small colleges that would be compelled to have an endowment of several hundred thousand dollars if their present faculties were properly paid. It is only a question of time that the section of the country in which Mr. Flexner has no confidence medically will have endowed institutions, and they will develop and be referred to by the profession and the public with pride. It takes time to accomplish this. There are a great many medical colleges in small cities that are now much better equipped than the best medical colleges in the larger cities were thirty years ago. Medical colleges in rural sections of the country hardly existed thirty years ago. See how they have developed in this short space of time, and no doubt they will make more rapid progress in the future than they have in the past.

We are tempted to add that it will be a long time before Mr. Flexner's ideas will sufficiently appeal to the members of the medical profession, or to our law making bodies to interfere materially with our policies and rights.

THE EYESIGHT.

In the practice of medicine there are so many large things of great importance that a good many small things, also of great importance are liable to be overlooked or slighted in the rush of practice. This is very often the case with the care of the eyes. Eyestrain is the primary underlying cause of many complaints and yet the physician will never think of examining them or having an expert examination of them unless his attention is directly called to them. It isn't because he does know this fact but because he does not think of it at the time in connection with his patient's complaint. Yet he should remember it for while most of us have two eyes we have strenuous objections to losing the sight in either one of them or in both for while glass eyes may be very ornamental they are truly not very useful in the sense of sight. Every patient who comes into your office with any of the various complaints which might possibly be attributed to the eyesight primarily, should have his eyes examined. Many times nothing will be found but very often not only will some disease of the eyes be discovered but the eye symptoms of other serious conditions or diseases may be found present such as Bright's Disease, Locomotyr Ataxia etc. Again the habit of looking into the condition of the eyes of your patient will enable you in many cases to cure conditions which have resisted your best therapeutic efforts because the underlying cause of the trouble was defective eyesight. One might mention certain cases of chorea as an example of this. The correction of the eye condition doing away with many of the choreic movements of the face. A few words of advice to every patient regarding the care of the eyes is never amiss. Tell them how to have the light strike whatever they are reading instead of shining into the eyes, why it is harmful to read in a reclining position. Why if ordinary print or writing has to be held extra near or extra

far from the eyes they should speak of it to their physician. Why if sewing or reading tires the eyes quickly or causes headaches they need to have their eyes examined. Why fine sewing at night is harmful or sewing on dark colors by artificial light strains the eyes. Advise against over-indulgence in moving picture shows as being very harmful to the eyes. Explain the benefit of resting the eyes occasionally when using them in work requiring close application. Particularly advise them who need glasses not to delay getting them, even though they may not think them becoming to their own particular style of beauty. Grave conditions are brought on by such neglect and what would be a mild defect if immediately attended grows into a serious one through delay. Frequent bathing of hard worked eyes in plain warm water or weak boric solutions are very grateful and beneficial to the organs of sight. Even those whose eyesight has been normal in their younger days should, we are advised by the best ophthalmologists, on arriving at the age of forty-two years or thereabouts submit to fairly frequent eye tests in the best interests of their sight. Above all don't let your patients get the idea that the same pair of glasses will be suitable to their eyes for the rest of their life for they won't. Usually about three years is a good interval to elapse between examinations, unless symptoms arise which indicate a less time. Once again we say that your patient has only one pair of eyes which he values very highly and is unwilling to exchange for ornamental, but useless glass ones, therefore teach them to take care of them. Leave the treatment of them however to the specialist and don't forget to advise your patient of the dangers attenden upon trusting himself to the so-called oculists, traveling eye-glass pedlers and others of like ilk. Remind the patient also that he only has one pair of eyes.

CONSTIPATION.

"Cleanliness is next to Godliness". An old saying and a very true one which refers to cleanliness within on the inner surface of the body as well as to cleanliness without on the external surface of the body. Very few stop to think of the bucco gastro-intestinal tract as being merely the inner surface of the body. True it is a surface of the organism with very important functions but that fact does not make it any the less a surface of the body. The derma —the external surface of the body also has important functions. It is just because of the important function of the inner surface —absorpsion—that cleanliness of it means improved health because it can then do its physiological work to greater advantage. If a patient came to your office whose exterior displayed the external symptoms of a lack of acquaintance with soap and water you would not hesitate to order a bath with frequent repetitions of the same sort of treatment; yet lack of cleanliness without while bad enough is not near so detrimental to your patient's health as lack of it within. Constipation, which is our medical term for an uncleanly, neglected internal surface is a serious, and in fact a dangerous condition in your patient. Appendicitis, Intestinal Obstruction, Pelvic troubles, and hemorroids are only a few of the serious diseases which may arise from it. Others of every day occurance are headaches, indigestion, vertigo, languidness. dullness, etc. Why is this so? Because no gastro-intestinal tract is free from putrefactive bacteria. The action of these putrefactive bacteria upon the digesting food in the upper part of the gastro-intestinal tract and on the residue of it in the lower intestinal tract give rise to toxines which being absorbed into the blood with the other products of digestion are detrimental to the health of the organism because of their poisonous action on the various centers which govern the normal physiological functions of the body. Question every patient most carefully as to their daily habit and where such a function is lacking take up the treatment for the establishment of one. After finding a patient is constipated and deciding that such a condition must no longer exist for the patient's good a treatment must be decided on. In deciding on that treatment you must be careful to choose one that will cure constipation and not merely form a laxative taking habit. That is the mistake that many physinians make in dealing with this faulty condition. They give drugs that cause a bowel evacuation daily only however if the medicine is taken regularly. This therefore is not a cure for the condition present.

Now many are the drugs and proprietary combinations vaunted as sure cures for chronic constipation but few of them are really of any use in the sense of a real cure. To cure constipation one must work out the cause. It may be a torpid liver that needs shaking up; it may be eating a class of food that leaves comparatively little residue for the bowel to work on, it may be flabby inteslinal muscles that need toning up and exercising; it may be excessive gas formation or any one or more of several things alone or in combination with one another. On your findings must you base your therapeutic measures which need not necessarily be confined to drugs. Abdominal massage and certain physical ex-

ercises have worked wonders in many cases without the use of any drugs at all. One of the worst things to use in attempting to cure ordinary chronic constipation are the saline cathartics. Not only do they deplete the blood of its fluids but they form a daily habit without in any way establishing a cure. Don't misunderstand. There is a difference between the cure of constipation by the establishment of a daily voluntary habit and the involuntary evacuation of the bowels daily by laxatives of any kind. Either is better than absolute neglect of the bowels entirely but the establishment of a voluntary normal daily habit is of course by far to be preferred and is the only cure in the real sense of the word. Many physicians at the onset of any illness give a cathartic so as to be sure of the thorough c l e a n l i n e s s of the inner surface of the body thereby avoiding the aggravation of their patient's condition by the results of auto-intoxication. It is too bad that many more do not this most excellent example set them by those who take this common sense precaution.

DIGITALIS.

Some drugs of our thereapeutic armatorium are more important than others and our knowledge of them must be correspondingly more through. It is necessary to know when and where they are indicated and just as important to know when and were not to use them. Also some preparation of the drug is better to use than another under certain conditions. It is very necessar y possess this knowledge for the advantage and benefit of your patient. Digitalis is one of the drugs of which all the foregoing is true. It is a drug of almost incaluable value in the hands of the physician who knows when to use it, how to use it, and what preparation of the drug is best to use in the case requiring it. It is also a drug capable of incalcuable harm when used improperly, or too long, or in too large a dosage. Although its therapeutic applications are many its main uses are to be found in certain classes of heart and kidney diseases. Generally speaking so far as the heart is concerned indications for its use are to be found in the cases where the heart action is failing. "A failing heart with rapid, feeble action, accompanied by low arterial-tension," is the way one eminent therapeutic authority puts it. It is very important that this be remembered for in the reverse of this heart condition it is considered contraindicated by the best writers on therapeutics. Its action a l t h o u g h directly on the heart itself is far reaching as by the more steady stronger working of the heart the circulation is strengthened and more blood sent to every part of the body. Digitalis does not act promptly, however, but takes some time before its beneficent action is present therefore, whenever in a case in your practice, it looks as if it was going to be needed, it had best be started a little ahead of its actual time of need so its therapeutic effects will be present in the time of the patients need for them. The administration of digitalis strengthens the action of the heart and slowers it, making its action stronger, steadier and more regular. Arterial tension is raised and diuresis is increased. It is one of those drugs, however, in which quality counts for much, and therefore only digitalis or its preparations put out by houses of positive reliability should be depended on; otherwise your patient will get no benefit whatsoever from its use and you will be led on totally erroneous grounds to condemn this invaluable drug and exclude it from further use in your practice, m u c h to your own and to your patients disadvantage. At the present time several of the larger and dependable drug houses have put on the market physiologically tested preparations of this drug from which all impurities and other detrimental substances have been removed. It is preferable in many localities that one of these preparations be used in your cases rather than that dependence be put on the uncertain, untested stock of the local druggist who it is probable has purchased his raw material with more of an eye to cheapness as to cost price rather than as to quality of the crude digitalis. And even if this is not the case he has not the facilities of the large manufacturing drug houses for testing the physiological action of his finished product. In a drug like digitalis this means a great deal. An infusion of digitalis however should always be freshly made. In reading the various authorities on materia medica regarding how digitalis acts, you will find they do not all agree as to the particular way in which its action is brought about, but on its usefulness and efficency in heart and kidney troubles where the drug is indicated you will find no dissenting voice. It would be out of place here to give you in detail all its therapeutic indications but let us advise you to spend twenty minutes or half an hour reading up about it in some standard work on materia medica and therapeutics. You will feel amply repaid for having done so for your therapeutic knowledge will have increased and therefore your usefulness to these of the laity who intrust themselves to your care when they are ill. Also remember regarding digitalis it is very important to know its contraindications as when to use

it. But this may be said with truth of all drugs for that matter.

THE CARE OF THE PREGNANT WOMAN.

In general practice obstetrics plays a most important part. The opinion of those whom he is called to attend in this branch of work can make or break a man in any community. And while medicine is not to be practiced just for the money one can make out of it, still expenses have to be met and it is just as well to live in comfort and provide for the future of one's family as to live in poverty and leave your family dependent on charity after death. Therefore to the pregnant woman give better than even your best attention. The care of the pregnant woman give might be readily divided into three divisions namely, (a) before the birth; (b) during birth; (c) after the birth. In each stage there are many little things that count very much in increasing or diminishing your patient's estimation of you. Your language, your actions your attitude towards the woman, and in fact practically everything you do or say in her sight or hearing counts for or against you and your reputation. Pregnancy in many women makes them very peculiar and exacting. They should not find you lacking in understanding their peculiarities or inattention to their axactions. Before the birth you have much to attend to. To the bride about to become a mother for the first time you must be extra kind and attentive. She is facing an unknown ordeal for the first time and while she longs to hold her baby in her arms yet she fears what she has been told she must go through. Foolish friends have painted for her in most lurid colors the pains and dangers of the confinement period, and though brave she is fearful. To her you must give encouragement and take the time and have the patience to explain childbirth to her in a simple way so that she will understand and realize that she can come through it not only safely, but even unharmed. Respect her almost maidenly modesty regarding examinations, vaginal and otherwise, and do as few as is possible but absolutely not one less than is necessary to keep you posted as to her condition. During these examinations your conversations and your actions should be perfect so as not to in any way be offensive to your patient. With the woman who has already gone through a confinement you do not have to explain the details of it. She knows by experience but she also must be treated with great deference and respect in regard to the changes in her temperament which have come with the pregnancy. What is said above regarding examinations refers here also. From the therapeutic side of medicine the following has to be attended to: (a) the teeth, (b) the breast, (c) the kidneys, (d) the veins of the lower extremities (e) old complaints. In each case the measures to be taken are simple ones. The administration of lime and calcium salts will preserve the teeth while their normal nutrition is being diverted to the formation of the bony parts of the coming child. Such a simple thing to order but when ordered it saves the mother so much misery during and after pregnancy from ruined teeth. Correcting nipple defects before birth and strengthening the breasts by massare at this time predisposes to nursing and makes it more practical and probable. Attention to the kidneys by means of frequent urine examinations for albumen, pus, blood casts, etc. often warns impending dangers such as eclampsia, Bright's disease, etc., and as forewarned is forearmed, appropriate measures can be immediately taken to prevent the danger from materializing. Varicosities of the lower extremities can be so easily avoided by the simple device of supporting bandages that one wonders why they are allowed to occur so often. Where your physical examination shows, or the patient's previous history iudicates any old chronic trouble anywhere it is necessary to be on your guard against any acute exerbation during the pregnancy. During the birth of the child again you must be the gentle, sympathising friend offering encouragement to the patient sufferer bringing a little body into the world. Remember she is suffering intense pain and you do not make it any easier for her to bear nor mitigate its sharpness by rough words or even an attitude of impatience. Be gentle, be kind and be putient and encourage her to push with her pains and get all the rest and quiet she can in the short intervals between them. When the head is born sufficiently to allow you to dull the pain with a little chloroform inhalations use them. The after-birth stage begins immediately after the delivery of the placenta and requires careful management and a constant vigilance against infection. Watch your temperature, pulse and odor, and quantity of the lochia. To he who knows they tell the story. To he who don't —well, he had better go learn before attempting to do obstetrics.

EDITORIAL NEWS ITEMS.

The Elizabeth Buxton Hospital of Newport News, Va. has been recently remodelled and enlarged. It now has a capacity for forty patients. This institution which was founded in 1906 by Dr. Joseph T. Buxton, has met with unusual success. The

medical department of this institution is in the hands of Dr. George J. Williams and Dr. Geo. E. Newby, and is equipped with a modern laboratory for the examination of blood, sputum, urine and stomach contents.

The surgical department is in charge of Dr. Buxton assisted by Dr. R. A. Davis.

This hospital is now very complete in every department.

Dr. James R. Rogers, of Raleigh, N. C., president of the Association of Surgeons of the Seaboard Air Line Railroad, delivered the annual address at the opening session of the ninth annual convention which met in Birmingham, Ala., on October 12th. Dr. Rogers paid his respects to the "medical meddler," who, he said, is inexperienced with the difficulties and responsibilities of the railroad surgeon, whose work is often complicated by the advent of the "smart Alex" of the town, who takes it upon himself to distribute advice freely as to what to do, where to go, whom to see, etc. The X-ray man, the electro-therapeutist, the osteopath, the professor of mechano-therapeutics may all become meddlers, said Dr. Rogers. This address was listened to with a great deal of interests, by the large number of Surgeons in attendance. The next annual meeting will be held in Washington, D. C.

Dr. W. J. McNaughton of Covena Ga. who was indicted some time ago for the murder of Mr. Fred Flanders has been found guilty, and will be hung on November the 30th.

Dr. McNaughtou is a very prominent physician, and his trial has caused quite a sensatiou throughout the state of Georgia.

Dr. McNaughton graduated from the Medical College of Georgia in 1899, and has met with success as a practitioner.

The forty-third annual meeting of the West Virginia State Medical Society was held in Parkersburg on October 5th, 6th, and 7th. The following officers were elected for the ensuing year: President, Dr. C. A. Wingerter, of Wheeling; first vice president, Dr. J. E. Cannady, of Charleston; second vice-president, Dr. Glenn Mooman, of Petersburg; secretary, Dr. A. P. Butt, of Davis; treasurer, Dr. H. G. Nicholson, of Charleston; councilors, Dr. H. P. Linsz, of Wheeling, first district; Dr. W. H. Yeakley, of Keyser, second district; Dr. P. A. Healey, of Charleston, third district; Dr. W. S. Link, of Parkersburg, fourth district; Dr. S. R. Holroyd, of Athens, fifth district. The next annual meeting of the society will be held in White Sulphur Springs.

The Norfolk Medical Society of Va., at a recent meeting elected the following officers: President, Dr. Israel Brown; Vice-President, Dr. N. G. Wilson; Secretary-Treasurer, Dr. Harvey Baker.

The Alabama-Bryce Hospital, Tuscaloosa, Ala., celebrated its fiftieth anniversary on October the 18th.

The Geneva County (Alabama) Medical Association held its regular quarterly meeting in Hartford, Ala., on Oct. 11th. The following doctors were present: I. L. Johnson, W. F. Mathaney, Chancellor, W. P. Chalker, M. E. Doughty, Slocomb; G. W. Williamson, O. L. Rivenbark, J. A. Fleming, J. C. Fleming, C. B. Powell, Hartford.

Abstracts of the Leading articles of the month.

The Carnegie Foundation and the Philadelphia Medical Schools.

A "special" from New York to the "Philadelphia Press" of June 6th contains, among others, the following statement:—

"A sweeping attack on the evils of Pennsylvania's politically-juggled medical charity is embodied in a report which the Carnegie Foundation for the advancement of teaching to-day issues on the subject of medical education in the United States and Canada. The Keystone State is described, according to the report, as one of the worst offenders in turning loose on the community, through this wedlock of business and politics, a class of ill-trained doctors who are little less than quacks when the menace they are to the health of the confiding public is considered.

"The report which makes these s t a r t l i n g charges is the result of investigations of Abraham Flexner."

If this newspaper report is true, when Mr. Flexner makes the statement that the Keystoue State is "turning loose on the community . . . a class of ill-trained doctors who are little less than quacks," he is guilty of gross misrepresentation. The whole field of medical literature, the records of the Boards of Medical Examiners of all States supplied with such, those of admission Boards of the Army, Navy and Marine Hospital Service, and of all h o s p i t a l s throughout the land, are available to demonstrate the high standard of Philadelphia's medical graduates. The State Examiner's records; as Mr. Flexner could have readily ascertained, indicate in fact that physicians—both male and female—trained in this city, stand with the foremost in their general averages.

The deductions of Mr. Flexner are as fallacious as his estimate of the standing of our medical schools is misleading. He

tells us that out of the 155 medical colleges in the United States "fewer than 30 have acceptable hospital facilities," and yet he decries as "thoroughly objectionable and demoralizing," the fact that the State of Pennsylvania has for years "been distributing large sums" which have enabled Philadelphia schools to build and partly to maintain their own hospitals. What nobler purposes can public money be devoted to than to facilitate both the skilled treatment of the poor and the facilities for a d e q u a t e practical teaching of applied medicine? Partly through this State beneficence each Philadelphia school is equipped with a modern hospital, and one of them (Temple Univessity), with two—to say nothing of the Philadelphia General Hospital, one of the richest clinical fields in the world and other fine hospitals—open to all colleges. To this fact is due, indeed, much of Philadelphia's leading position as a t e a c h i n g center,

Mr. Flexner's view that "consolidation" of medical schools is the proper course to follow serves but to show that his whole fabric is based on pure conjecture. If he fathomed the teachings of centuries of practical experience—that of Europe—he would have become familiar with the evils or concentration. Within the last few weeks the writer saw the main courtyard of the Paris Medical School filled with troops police and "plain clothes' men" to preserve order during an "examination" for *agreges*, so intense was the feeling among the general profession and students against a system which enabled what they t e r m e d "pontiffs," "the elect"—the faculty, in other words—to arbitrarly select whom they pleased for these important teaching positions. It is the "boss" system personified, even though the "bosses" here are high-classed men, who think, at least, that they are serving the best interest of the school. In our country the results of "concentration," of which Mr. Flexner's plan would be the initial step, would prove far more pernicious, for it is not the modest and learned scientist who would reach the apex of power, but the hustling, ignorant wire-puller. Briefly, France is chafing and trying to rid herself of the very educational aristocracy--which even at best condems a multitude of excellent men to effacement regardless of their ability—that Mr. Flexner and other theorists, in total ignorance of the teachings of experience, want to impose upon us with the aid of Mr. Carnegie's money!

What experience *has* taught, is that *the small medical school with ample hospital facilities is the ideal one.* Each student can receive individual attention from the teaching staff, come into contact with the patients, and have a sufficient number of these at his disposal to acquire pratical experience worthy of the name. The writer will never forget his first two years of study, spent in the medical department of the University of California, then known as the Toland Medical College of San Francisco. There were but 60 students all told, and these had at their disposal the city and county hospital, containing some 360 beds. Besides attending didactic and clinical lectures and being "q u i z z e d" by his teachers, the student was given charge of cases (only figuratively, of course)and had to report them in full before his clinical chiese and fellow students, stand the fire of their criticisms and defend himself as best he could. If this did not inculcate practical knowledge, "engrave it on the tablets of his memory," as Professor R. Beverly Cole used to say, nothing could. This was thirty-four years ago. The best European medical schools are steadily approaching this ideal and essentially American plan. It represents also the trend of *all* Philadelphia medical schools; each is doing its utmosi to raise its own standard, which is already on a par with that of many European schools. Indeed, the records of our State Boards suggest even a better relative standard, for while, as stated, Philadelphia graduates are among the foremost in examination averages, European graduatos fail with comparative frequency, and those who do pass seldom exceed considerobly the passing mark.

On the whole if Mr. Carnegie wishes to benefit the medical profession at all, and through it suffering mankind, it will not be by accepting the statements of his misinformed agents. He should first realize that immense progress has been made in the United States during the last twenty years in matters of medical education, and that his munificences will prove most useful if they are employed to supply that which is still needed to raise our medical schools to the standard hoped for by their teachers, who, better than anyone, are able to discern defects and indicate where improvemedts might be introduced.

Pending such a step, the writer would suggest, concerning a few of th main features of the Carnegie Foundation Report:—

(1) That the preliminary education of medical students, in keeping with that of all other classes of American students, will not be materially improved until our preparatory and high schools and colleges will have ceased to neglect spelling and grammar. Medical colleges, by accepting none thoer than high school and college graduates, can enforce this by refusing to accept

(as is the case in France) any examination paper containing more than three errors (credited to oversight or excitement) in spelling or grammar.

(2) That the prevailing four years' course, including at least the minimum laboratory work recommended by the Council on Medical Education of the American Medical Association, be raised to five, the fifth year being employed exclusively for clinical work at the bedside and in the dispensary by the students, under the supervision of clinical professors. Clinical examinations by the major professors, before the class at frequent intervals, would then determine his ability as a practising physician, and his right to graduation.

(3) That a medical college should be considered in good standing by the State Examining Boards, only when it can provide ward and dispensary facilities sufficient to carry out such a plan, and submit to periodical inspections by a committee of the said Boards.

This plan would work no hardship on schools that have striven to reach a high standard. The number of students would be decreased, but the extra year's fees would compensate for this. Additional clinical facilities would have to be provided, but this would only mean, in most instances, affiliation with one or more local hospitals, whose staff would be given positions as clinical professors. C h a r i t y patients, especially dispensary cases (which owing to their great number, are often cursorily examined and treated), would profit greatly from the change, since carefully worked out histories, correct diagnosis, judicious (supervised) t r e a t m e n t and watchfulness would stand to the undergraduate's credit at his final examination.

It is by fostering the realization of some such plan which would place the United States at the head of all nations in medical education, rather than by destructive methods, that the Carnegie Foundation could, in the writer's humble opinion, fulfill a great mission.—Monthly Clclopedia and Medical Bulletin.

C. E. de M. Sajous.

An Uafair Report.

There has been quite a flutter among the medical colleges of the continent over the publication of the fourth bulletin on Medical Education in the United States and Canada, being a report to the Carnegia Foundation for the Advancement of Teaching, by Abraham Flexner. The introduction is by Dr. Henry S. Pritchett. There are many facts stated, For example, the introduction asserts that "for twenty-five years past there has been enormous overproduction of uneducated and ill-trained medical practitioners. Over-production of ill-trained men is due in the main to the existence of a very large numer of commercial schools, sustained in many cases by advertising methods through which a mass of unprepared youth is drawn out of industrial occupations into the study of medicine."

There is, however, through the country, a feeling that the report is distinctly unfair to many worthy institutions in the land, that are doing good work in educating physicians. It may not be true, as is stated by the report, that in a town of two thousand people, where seven or eight practitioners live, two would be able to do the work. There is always surrounding such a town, a country tributary thereto, where there is a demand for physicians, and while two might be enough for the actual inhabitants of the town itself, the community would suffer if there were only two to care for the town, and the surrounding country. None will deplore more than the well-equipped members of the profession, the influx of semi-educated doctors, and, what is even worse, the quacks who, under the names of chiro-practics, mechano-therapists, etc., delude the public, and tend to bring into disrepute the healing profession.

The writer of the report before us seems to have taken as his standard some of the very highest institutions in the land, heavily endowed, possessing names of sterling worth, located in the centers of large populations, and to have condemned nearly everything that falls below their standard. This is decidedly unfair to small and worthy colleges. Many of them are doing excellent work, even though their laboratory and clinical facilities are below those maintained by the larger and older colleges. A sneer is contained in the statement that some people claim the poor medical school should be maintained in the interest of the poor boy. Nobody claims this. But the claim is made that many poor boys, possessing the physical and mental qualifications that go to the make.up of a good practitioner, should have educational advantages other than those furnished by the large city medical school, which because of its distance and expense, they cannot attend.

Doubtless the Carnegie foundation is capable of accomplishing much good. But there is something too much of the ex-cathedra style in this volume to suit most people.—*Medical Sentinel.*

Comments on the Report of the Carnegie Foundation.

There has recently come into our hands the report of the Carnegie Foundation for the Advancement of Teaching upon the medical schools of the United States and Canada. Already this report has caused much editorial comment and the resentment of several medical schools. One school, we learn, has actually begun legal proceedings. The report is divided into two parts, the first dealing with the several subjects under investigation, such as preliminary requirements, laboratory and clinical teaching and financial resorces with suggestions as to improvement. The second part deals with the medical colleges separately arranged by States, showing the yearly income, number of students, laboratory, dispensary and hospital facilities of each.

The style of the report is in general excellent and speaks well for the thoroughness of investigation. A tendency to sneer and caricature detracts greatly from its value by creating doubt as to the well-meaning of the authors. It is unfortunate that their candor in place of being earnest should become facetious. However, we believe that they endeavored to be sincere and judge from the approved standpoint of modern medical teaching.

Stress is laid upon advanced requirements for entrance, several years of college work in physics, chemistry and biology. However desirable this preliminary training may be, if is not an essental prerequisite to the study of medicine and its intelligent practice. Its advantages lie not so much in the intrinsic facts acquired as in the generalizations deduced from scientific observation and study. There is no doubt that the application of such generalizations facilities competent understanding of progress in scientific research, which in medicine follows more and more the lines of the exact sciences. The chemists, for example is working out the problems of immunity. Again, habits of recording and checking observations in the laboratory with their demand for accuracy and detail from the essence of a training later useful in practice. But while all this training is useful, it is by no means essential. Endowed with a good sense of logic and a healthy thirst for information, there is no reason why a high-school graduate should not be able to digest all that is necessary for intelligent practice. Besides, while it is true that medicine is becoming more scientific, it should not be forgotten that its practice depends upon art more than upon science, and preliminary training has but slight bearing upon the art, which demands more of temperament than of intellect. Throughout the report there is no consideration given to the peculiar human side of medicine.

As to laboratory teaching, nobody denies its value. Truth becomes apparent to the student by actual demonstration. Twenty or thirty years ago anatomy, physiology and pathology were of little moment in the curricula of our medical schools, as they seemed to have but slight bearing upon the nature of practice then current. They were superfluous refinement. Arrayed against symptoms was a formidable host of drugs and that constituted practice. To-day, however, when confronted by disease, we think more in terms of the fundamental branches. We learn the abnormal by reference to the normal. We keep before us in the presence of disease the picture of the pathlogical processes involved. Hence the necessary of sound training in the first two years, work of our medical schools. But there is a question whether the student so trained does not come to look upon the body as a mere machine. This is especially true of the clinical laboratory.

Does the clinical laboratory diminish the spiritual side of our calling? No small part of practice is to give the patient the mental comfort and reassurance that he demands, to repay his faith by a kindly and generous sympathy. With too great a leaning upon the clinical laboratory and the application of its methods to the bedside one is prone to overlook the patient, a fact of which the patient is sure to take note. We admit that the clinical laboratory is essential, but still believe that it is not to be used for the purpose of automatic diagnosis. Disease must be handled not *in vitra* but *in vita*. We know that frequently conclusive test- tube experiments cannot be confirmed in the living subject. What more absured than the tendency some eight or ten years ago to recken appendicitis in terms of the leucocyte count? We therefore think it a mistake that such emphasis should be placed upon the clinical laboratory. It is useful, and, while frequently determining diagnosis and generally checking data gathered at the bedside, it cannot replace critical observation of the patient and should not to the least degree diminish that mutual feeling between physician and patient, which glorifies the practice of our profession.—Pacific Medical Journal.

Give the Colleges a Square Deal.

Our brethren in the Dominion of Canada, who devote their time to the work of educating students for the medical profession, have had troubles of their own, brought on by hasty examinations of their methods, and a denunciation of their in-

stitutions at short and immature range. Somehow so many of the writers who profess to publish information regarding medical colleges often take a hasty glimpse of the outside of the buildings, ignore the men in charge who can show them what there is inside. and then go forth and say that the institution is no good, and should be legislated out of existence. They act so much like the Englishman who passes through the United States with as much rapidity as he can, crossing from the Atlantic to the Pacific cost on his way round the world, and then writes a volume on the characteristics of the nation, mostly by way of criticism of everything that is not managed in accordance with British ideas. It is needless to say that the management of the Halifax Medical College is not well pleased with such hasty report made by Mr. Abraham Flexner and Dr. N. P. Colwell, regarding their college. It appears, from an article that appears in the Maritime Medical News, dissecting the report of these hasty gentlemen, that a grave injustice has beed done the institution. If they had consulted the management, and had an opportunity to see what was the best the institution had to offer, and had then condemned it, the injustice apparent to the public, would not have been so apparent. our sympathies go out to the college named, for we dearly love to see fair play, and a square deal.—The Medical Sentinal.

Opinions of Mr. Flexner.

If Mr. Flexner did not have the Carnegie "wad" back of him he could not have printed a 346 page quarto book to air his personal opinions as to how things medical should be run, nor would any one have read them if he had printed them, but as money is king. his words come with a sort of authority. If his basic idea were right his chain of reasoning would be fairly good but as it is wrong his book (for that is what the *Report* is) is in its essence mere vaporings, though it contains much that no one can dispute, especially the last half of it, which gives the facts concerning the various medical colleges, such as when organized, teaching staff, etc., etc.

Chapter X, treating of "The Medical Sects," is the real heart of the book. Among the "sects" are Homœopathy, Eclecticism, Osteopathy and several others, some of which "others" are pronounced to be "unconscionable quacks," but really from the spirit of the chapter all of them come under this heading in the mind of Mr. Flexner, though he says that "Sectarians in the logical sense above discussed, are (1) homœopathists, (2) the eclectics, (3) the physiomedicals, (4) the osteopaths." The "logical sense" referred to in the foregoing quotation seems to be that "Once granted the possibility of medical dogma, there can be no limit to the number of dissenting sects." You can see in this the spirit of that "scientific medicine" which Mr. Flexner represents—perhaps wrongly. It is the same that once hissed "believe as I do or be damned." If you believe in any fixed principle in medicine, like the law of similars, you are a "sectarian," If you hurrah yourself hoarse over the "triumphs of modern medicine" look to the future for truth, incidentally kicking aside any fragments of it that lie in your path, you are "one of our people," the medical elect, and the offices and plums are yours if you can out-shout your fellows, or have a "pull."

Mr. Flexner rails at the medical sects, among which he even includes "allopathy," and cannot, or will not, see that what he chooses to term "scientific medicine" is really the most bigoted "sect of the whole outfit. Its very name is unscientific for that which is "scientific" is that which can be demonstrated. Medicine exists for the cure of the sick, though this seems to be forgotten by some.

Now can any physician positively, *i. e.*, scientifically, tell what will be the outcome of any given case? The homoœopath believes that by taking the symptoms of the aforesaid case and giving the patient a drug that has similar symptoms he is doing the best that the art of medicine permits. The fruits—restored health—bear out his belief, as comparison of the results of a century *scientifically* prove. But in curing his case by prescribing on the "dogma" of Similia, he becomes a "secterian." The physician after the heart of Mr. Flexner, does many things; he takes the blood count, the opsonic index, pulse tracings, examines everything in sight under the microscope, brings a beautiful array of instruments to bear, throws in a learned medley of new words, and the patient gets well or dies, just as he would under "sectarian" Homœopathy. But men judge them by their fruits and, as intimated before, these show that more patients recover, the duration of their illness is shorter, and their return to health is more marked under Homœopathy than under "scientific medicine."

Mr. Flexner writes that "medicine" (*i.e.* the "scientific" kind) "is a discipline, in which the effort is made to use the knowledge procured in various ways in order to effect certain practical ends." Great cod fish balls! Isn't every mother's son of us, besides these "scientific" medicine men, doing the same thing every day, from President Taft down to the laborer?

He also says that "scientific" medicine "has progressively become less cock-sure and more modest." We are glad to hear of this reform, but have, as yet, seen nothing of it. This modesty is not apparent in the book before us, which speaks of those who do not believe as it teaches as "medical sectarians," unconscionable quacks," "drug mad," (the electics) reeking with commercialism, "mercenary," "rudely ignorant" and so on.

Turning from this chapter on "Sectarians," by which is meant those who believe in anything, to the chapter on "State Boards," we see glimpses of the very practical side of this beliefless "scientific" medicine. One quotation from many will suffice to show what is meant. Here it is:

"The examination for licensure is indubitably the lever with which the entire field may be lifted; *for the power to examine is the power to destroy.*" The *italics* are ours. The drift of this is that the examining boards are to assume a power they do not possess and refuse examination to all but those from the favored colleges. The weeding out of unfit practitioners is theoretically very laudable, but if a scientific test, or serum, could be discovered by which all the unfit, regardless of college or station, could be rooted up, there might be wondrous things seen, and wailing and gnashing of teeth heard. Why, think of it! Even the august boards themselves might be decimated, and the favored universities not escape.

However, our homœopathic colleges have but little to fear from the roaring of Mr. Flexner, even though they do not vivisect cats and dogs and learn medicine by practicing on mice and guinea pigs, for the people of this country are still masters in many things. They kicked over a medical edifice, we have heard, in Germany, and can do it here. Give your representative a hint.

Finally, if the ideas advanced by the Report are to be made into law, the old variety stage song, "If you ain't got no money you needn't come around," will become very true of medical colleges and their students.—Homœopathic Recorder.

Dr. Simon Flexner's Brother.

Dr. Simon Flexner's brother is the gentleman appointed sometime since to examine and to pass judgement upon the medical schools of the United States and British America. We are informed that he is, or was, a teacher. We do not know that he ever studied medicine, but being the brother of a great doctor, oh well! it is all in the family anyway! It reminds us of the widow of a pioneer doctor. The widow continued practice after the doctor's burial. She said:—"I know how to doctor folks. I was married to a homeopath doctor for fifteen years and I have got his box of medicines and his symptom and dose book; course I can doctor folks."

In doctor Flexner's brother's rambles, judging from his reports on schools well known to us, he was seeking for architecture and autopsies. Nothing else seemed to interest him much. He did not seem to realize that a large, well lighted, well ventilated, well appointed dissecting room is an anatomical laboratory. Chancing to be in other well appointed laboratories about the noon hour, when no work was in progress, he could not realize that he was in a laboratory at all, He seemed to be so impressed with the derivation of the word clinic as not to recognize an out-door clinical room; because it had no beds in it. At least that is the only reason we can think of, why he reported, "no adequate clinical facilities" in one college when as a matter of fact there are eleven suites of rooms, not eleven rooms but eleven suites of rooms well equipped with accessories, for out-patient work. He ignored the City and County Hospital work in San Francisco. He did not know of the large number of cases made use of for clinical purposes, from private sources.

We would not call the doctor's brother a prig. Nor would we be so offensive as to call him a snob. We might be pardoned for thinking him a very poorly chosen small man for a large job. We do not wish to persecute him, but would prefer to join with our many friends in buying him a halo, so that his light may not be hidden under a bushel, after the Carnegie foundation has succeeded in corporatizing, capitalizing and consolidating the medical schools of our country. We would suggest as a future undertaking, that he now investigate the Theological schools and then the Law schools. He has held the medical profession up to ridicule, let the other learned professions have a chance at the hands of this *learned* gentleman.—Pacific Medical Journal.

The Proprietary Medical College.

Few things within the medical world have been as harshly criticised and condemned as the proprietary medical college —that institution of learning whose only source of income is that derived from tuition fees. These fees vary from $50 to $100 and in not a few instanres students pay what they can in cash and give notes for the balance. Sometimes these notes are met and again they are not. Up to a few years ago the country was dotted with institutions of this character. Some were poorly conducted, with a poorly qualified teaching

force, who made up in enthusiasm what they lacked in erudition, and their laboratories were characterized by a dearth of equipment. On the other hand, richly endowed schools had highly trained and well paid teachers in magnificently equipped laboratories and catered to the cream of prospective students, leaving the hoi polloi for the proprietary schools to scramble for. It can be stated without fear of successful contradiction that a doctor cannot have too much practical learning, and following this proposition further, it would seem that the school possessing the best teaching force and the most completely equipped laboratory would graduate the best doctors. I believe such a school does graduate men with a most extensive knowledge of medicine, but it is a question if such men are better doctors than the graduates of the school of lower standing. As a rule, the graduate of a proprietory school was from the country and was attending college for the single purpose of learning all the medicine he could. He had but little money, his clothes were reminiscent of the general store at the cross roads and his social aims gave him no concern whatsoever. He attended lectures during the day and pored over his text-books at night. Generally, when he finished school and was ready to face the world, his finances were at such a low ebb that there was forced upon him the necessity of seeking a location with the least competition. In consequence of this need our young friend betook himself far from the boulevards and cafes and hung out his shingle in a remote rural district where people go to bed at sundown and bestir themselves at cock-crow. The good people of such a community needed him. He served a humanitarian purpose. He had no professors to seek advice from over the telephone; mayhap his nearest medical neighbor was miles away. Under these circumstances, does a man make good? Well, I guess, yes. He must make good. Look at the other side of the picture. It is not false reasoning to assume that the graduate of the university or heavily endowed school comes from well-to do parentage who were amply able to send him through the university, dress him well, permit him to exercise his social ambitions and, after graduation, keep him in a hospital for a year or so and then send him abroad. Is this man with a skin full of culture and a fondness for the gayness of the city, going to content himself at any great distance from the lights of the bouvlevards and the festive cock-tail of the cafe? Well, hardly, and I cannot blame him, for these are habits and they grow on one and are dreadfully hard to break. So he sticks around town, opens an office in a centrally located building, runs a gasoline cart if he can afford one and becomes just an ordinary city doctor, In a few short years, under the discouraging influences of a city practice he has lost all of the noble thoughts and high aims possessed by him in his callow student days, for he has learned by sad experience that city dwellers do not idealize doctors as the country folk do and they beat him out of his just dues with no compunction whatever. But our friend in the country has plodded along, forging straight ahead. By earnest endeavor and strict attention to duty he has succeeded so well in his first location that, obeying the natural desire of man to seek more congenial companionship and more cultured surroundings, he removes to a fair sized town, his place being taken by a younger man in as great need of immediate practice as he was a few years before. His town practice thrives, his family grows up and is educated, his bank account shows a healthy growth and, all in all, he is a highly useful and thoroughly contented citizen. His city brother, unless he marries or inherits money, pegs along year after year, finding his expenses keeping pace with any increase in his income. In twenty years he is not much better off than he was ten years after graduation. With all his highly trained medical mind he has not served the world one-half so well as the crude product of the proprietary school nor is he one-half as happy. The essence of this is, that the well educated, cultured physician will locate only where surroundings are pleasant. He will naturally gravitate to over-crowded medical centers and avoid rural locations. If such be the case, what is the future for the people in remote districts? They need doctors as badly as do crowded cities. Proprietary schools under the withering influence of stringent state laws and unjust public opinion, are rapidly going out of existence and the day is not far away when the student of medicine must belong to the favored classes of society, for the demands made by the universities and heavily endowed schools are along financial as well as caste lines and can only be met by the well provided for student.—Ed., Med. Era.

The Report of the Carnegie Foundation on Medical Education.

Considerable turmoil has arisen in many parts of this country consequent upon the appearance of the report of the Carnegie Foundation upon the status of medical education in the United States. Few centers have escaped criticism, and even

schools of recognized standing have been discussed with a view to their improvement.

It was to be expected that any honest review of medical education in the United States must be critical, when it is a matter of common knowledge that at this time the whole scheme of educational standards is in a state of transition. The last ten years have demonstrated a revolution in ideas of medical education, all tending to a better recognition of the scientific side of medicine.

The purposes of the report of the Foundation are evidently two-fold. First, the worthy desire to standardize the preliminary equipment of an intending medical student, and, second, the recognition of the necessity for the survival of medical schools with equipments sufficient to satisfy the needs of a medical education. How far the report may reach in serving these purposes is debatable, and already a strong cry has come from the independent medical schools aiming at the preparation of practitioners without due regard to the laboratory side.

One of the most interesting features in the report is the comparative statement showing the expenditures and receipts of various institutions. With many schools this information is not complete, but in nearly all instances where the information is tabulated the expense of educating the single student is far in excess of the receipts from the students themselves. This is particularly true with the leading institutions in the country.—New Orleans Medical Journal.

Much Ado About Nothing.

Mr. Abraham Flexner has surely "started something." He has stirred up a hornet's nest and gotten the medical colleges to howling. No thief ever felt the halter draw and entertained a good opinion of the law, or words to that effect. Mr. Flexner rather overdid it; like the preacher who prayed for rain, and got hail. Everybody recognizes the fact that there are too many medical schools; that the requirements in many are too feeble, graduation too easy, equipment for teaching in some appear only on paper, and that half-cooked doctors are turned loose on a too confiding public, largely in excess of the demand. This is an evil that calls for reform; but Mr. Flexner's report has not the effect of law, and I don't see why the colleges that are hit should get so hot about it. His criticism does not amount to a row of pins; for instance, amongst the five or six colleges commended by Mr. Flexner as filling the requirements—his ideal—he mentions the Medical Department of the University of Texas, and puts it in the class with Johns Hopkins, Pennsylvania University, Ann Arbor et al. Now, it is notorious that our own Medical Department of the University of Texas—the pride of the State, while efficient and ably officered, turning out well qualified young doctors—*has no laboratory equipment worth mentioning*. And our wise Governor cut off an appropriation to better it. The late Professor McLaughlin extemporized a little chebang in his bedroom—in which he made his researches. This defect has caused nearly every pathologist who has come to that college to teach, to quit and go elsewhere. Dr. Austin left because (he told me) he could't work without tools. Allen J. Smith, Thayer, and, away back, Geo. Dock, all took positions where there was equipment.

Now, I have no doubt Abraham means well. But he rather overdid it, as I said. It reminds me of the boy who, desiring to cut off his puppy's tail, got his daddy to stretch the tail across a stick of wood. Just as the axe decended, daddy pulled the dog, and sonny cut his pup's tail off—just back of the ears. 'Abe cut off too much tail. It was all tail, in his opinion. Only nose and ears left.—Texas Medical Journal.

The Poor Boy's Opportunity in Medicine.

The Carnegie Foundation Report, is discussing the "poor boy" argument, takes the following position:

"What are the merits of this contention? The medical profession is a social organ, created not for the purpose of gratifying the inclinations or preferences of certain individuals, but as a means of promoting health, physical vigor, happiness, and the independence and efficiency immediately connected with these factors. Whether most men support themselves or become charges on the community depends on their keeping well, or, if ill promptly getting well. Now, can any one seriously contend that in the midst of abundant educational resources (8,000 public and over 1,000 private high schools, with 300,000 boys enrolled; 120,000 male students in the higher academic institutions, and these numbers swelling with unprecedented rapidity), a congenial or profitable career in medicine is to be made for an individual, regardless of his capacity to satisfy the purpose for which the profession exists? It is right to sympathize with those who lack only opportunity; still better to assist them in surmounting obstacles; but not at the price of certain injury to the common weal. . . . . Your "poor boy" has no rights, natural, indefeasible or acquired, to enter upon the practice of medicine unless

it is best for society that he should." It is contended that "low entrance requirements flourish, then, for the benefit of the poor school, not of the poor boy.—Lancet Clinic.

The Carnegie Foundation Report.

Bulletin number four of the Carnegie Foundation for the advancement of teaching, dealing with Medical Education in the United States and Canada; has been received. This voluminous report, written by Abraham Flexner, with an introduction by Henry S. Pritchett, has probably commanded more praise and more abuse than any other educational report written.

After a somewhat careful review of the work it gives the impression that there is good ground for both praise and blame. We regret very much that this latter is so, for there is so much in it that is so very good, appealing to every right thinking medical man, and especially to teachers of medicine. Nevertheless, we can not shut our eyes to the fact that his strictures upon the medical schools of the country are strongly affected with a bias in favor of those schools requiring two years of collegiate work previous to the beginning of medical study. In all others he seems to see no good at all. Their faults are dwelt upon at large, in a sneering, arrogant manner; their strong points not mentioned at all, and their condemnation, with few exceptions, is absolute. Were it not for this obvious bias and his known superficial examination in some instances, perhaps in many, as well as easily demonstrable misstatement of fact, the whole report would carry more weight and the aim of the Foundation, in part, be fulfilled.

Not only do the schools of this country and Canada, with the exception of about thirty, come in for a full measure of condemnation but state boards as well. Especially is the State Board of Illinois sharpely criticised as conniving with schools who maintain a low standard of requirements and teaching. Those of us, here in the West, know that the Illinois Board has ever been to the fore front in improving the standard of medical education.

Those of us interested in medical teaching need to look back but a few years to see what strides have been made both in entrance requirements and in the length of time required to complete the medical curriculum. This advance has been very gratifying and it requires no prophet to foresee the day when at least two years of collegiate training, embracing chemistry, biology and physics, will be a prerequisite for entrance into medical schools and a requirement of the state examining boards. That day is even now at hand and is but the necessary consequence of the evolution of medical education.

Another object of his attention is the gentlemen appointed by the State Boards for examining the credentials of prospective medical students. These gentlemen are supposed to receive their appointments by reason of their integrity and scholarly attainments, but are severely criticised as either incompetent, negligent or worse. In fact, he sees no good in anything that does not comport with his pet idea of the two years' collegiate training as a prerequisite. Have patience Mr. Flexner, it is coming and not with the resulting destruction of the medical schools with the exception of thirty or so which you so fondly anticipate. For your information, and for those who may be faint hearted in the matter, I will say that every advance made, either in raising the standard of admission or of lengthening the course of study in the school with which I have the honor to be connected, has resulted in an increased student body. Consequently we in Milwaukee are welcoming the day when at least two years of collegiate training will be required by our State Board.

His position in regard to divided schools is to be commended. We have, often, in this journal spoken for the school where both laboratory work and clinical teaching were closely associated, either under one roof or in the immediate neighborhood. The student from his first entrance into a medical school should be under medical influence; his laboratory training should be given by medical men with direct applicability to the clinical department. The medical atmosphere should permeate the laboratories, and their teachings should be of that concreteness as will make them thoroughly practical. So strongly do I feel this that in the case of one in whom I am interested who took this premedical training during his work in the University of Winconsin, I advised his taking laboratory work including chemistry, bacteriology and histology in the medical school, notwithstanding he stood well in his University work. He followed my advice and found the teaching radically different and an efficient preparation for the clinical work, which the other was not.

His article in regard to the intimate relation that should exist between the laboratories and the clinical department is deserving of attention by every medical teacher. It is exceptionally good and shows the great need of laboratory training for the student who would derive the greatest good from the clinical training. Further on he

shows how necessary that the laboratory should be easy of access to the clinical teacher and his students so that there be prompt findings in material submitted for examination. Prompt reports insure sustained interest on the part of the student, and better understanding of the matter in hand.

In regard to the relation of the hospital and medical school he very rightly says that the hospital facilities should be under the absolute control of the medical school in order to secure the greatest teaching efficiency, and the greatest benefit from the material presenting itself. Be the beds few or many, they should be absolutely under the control of the school, and a large proportion of them used for the teaching of internal medicine. He says, and with great reason, "The backbone of the structure is the clinic in internal medicine. This central fact cannot in America be too strongly emphasized. The sufficiency of the school's clinical resources depend at bottom on its medical clinic; the value of its training depends on the systematic thoroughness with which it is in a position to use an adequate supply of medical cases."

It is only too true of the majority of schools that the more spectacular surgical clinic receives the greatest amount of attention from both faculty and students, every facility being granted it to the neglect of the quieter but none the less important medical clinic. He lays great stress upon the value of bedside clinics, the section limited in number, each student having his own bed to care for under the direction of the professor. Case histories should be carefully made and details of treatment carefully recorded. He lickens the bedside clinic to the visiting of the patient at his home in contra distinction to the dispensary work, which should be training in office work.

Here too the sections should be small, and the students carefully trained in the taking ot histories, in physical examination, in diagnoses and treatment. Here as in the hospital, there should be ready access to the laboratory for the examination of excreta, sputum and blood to settle, if possible, obscure points. This is as it should be and is the goal to which all well intentioned schools are striving, and their number is more than thirty-one. The chapter dealing on financial aspects gives some startling figures. It is astonishing how some of the schools can "move, live and have a being" with such infinitesimal incomes. There are fifty-six schools in the United States and Canada whose annual available resources are below $10,000 each. While this they can scarcely expect to continue an existence, and the game is hardly worth the candle. So thinks Mr. Flexner also, for he says "There is not a shred of justification for their continuance." In the chapter on Reconstruction he endeavors to show that by wiping 120 schools off the map the country would be better off and medical education receive an impetus. Medical sects come in for a full share of attention, none of it at all flattering or commendatory.

Then come the state boards, whose functions and weaknesses are elaborated upon. With great truth he says "At present their examinations are not only without stimulating effect; they are actually depressing. There is only one sort of licensing test that is significant, viz., a test that ascertains the practical ability of the student confronting a concrete case to collect all relevant data and to suggest the positive procedure applicable to the conditions disclosed. A written examination may have some incidental value; it does not touch the heart of the matter." This, if taken to heart, would do away with the baneful cramming for state boards from quiz compends, and would direct the student's energies towards endeavoring to reach logical conclusions rather than towards attaining a parrot-like efficiency. After the fundamentals have been thoroughly grounded the object of all teaching should be to develop logical thinkers, and the teacher who can best develop in his studies the power of logical thinking is the most successful one. He suggests as a model state board one drawn from the teachers as well as the other best elements of the profession "provided with the authority and machinery to institute practical examinations, to refuse recognition to unfit schools, to insist upon such preliminary educational standards as the state's own educational standard warrants" and provided with sufficient funds to efficiently perform its functions. This is right, but may be a long time in coming.

The following chapters are on post graduate schools, schools for women and for negroes. Or the latter, Howard at Washington and Meharry at Nashville are the only two doing good work. These schools he believes should be adequately aided by the goverument, and much towards the solution of the negro problem may thus be accomplished.

Part II is devoted to the report upon the individual schools of the United States and Canada. These are alphabetically arranged by states and provinces, rendering the finding of any report desired an easy matter. There is much of interest in these reports and, could we feel sure of their

being unbiased and painstaking, would be important. As they read they show a shocking condition of medical education in the United States and Canada, one which I am exiremely loath to believe. If reports known to be without foundation in fact have been made in known instances may the same not be true in others? I would not care to be so sweeping neither do I care to say "Falsis in uno, falsis in omnibus." Leaving the bias out of consideration Mr. Flexner is to be congratulated upon his masterly handling of the subject and furnishing such an abundance of food for thought.—Milwaukee Medical Journal.

In an address by a member of the faculty of the Medical College of South Carolina, on the recent occasion of the annual commencement, the speaker expressed the conviction that "a Southern medical college is the best place for the training of physicians and surgeons who expect to practice medicine in the South." He referred to the experience of Dr. J. D. Long, of the United States Marine Hospital Service, who in one day last April, at Columbia, S. C., examined several cases of beriberi, one each of elephantiasis and pellagra, and a case of hepatic abscess following amebic dysentery. He said that it was most improbable that such opportunity for the study of tropical and subtropical diseases would be afforded a physician north of Mason and Dixon's line in any one day in a decade. In thus extolling his own section of the country as the fittest place from the clinical standpoint for the study of medicine for those who contemplate practicing there, the speaker seemed unmindful of the fact that, in general, Southern medical colleges have not sustained a very great reputation in the way of high-grade instruction. This may have been partly due to the fact that Southern medical institutions have not received the financial assistance from the public which has been freely rendered to literary and classical schools. If the South has diseases peculiarly its own, which appeal to its young men contemplating the study of medicine, that study should be assisted with every facility so abundantly possessed by Northern medical colleges, especially those connected with universities, or which have been libarally endowed. The day of the medical school supported exclusively by tuition fees is rapidly passing. Let there be more such schools as the medical department of Tulane, for instance, and there will be no difficulty in filling the classes in Southern medical colleges.—The Lancet Clinic.

Henry L. Pritchett, not unknown to fame since the issuance of the report on medical education by the Carnegie Foundation has written a brief article on "How to Study Medicine."

It is published in the current *Outlook*, a periodical occasionally figuring in the news dispatches in connection with its strenuous contributing editor. Readers of medical journals are, of course, familiar with the gist of the subject. Upon the whole, the article mentioned is a correct presentation of the facts anent the difficulties confronting the young man desiring to enter the profession of medicine. It gives familiar figures about the overproduction of medical men because of the excessively large number of low-grade proprietary schools. The truth of such statements no one will deny. Yet, Mr. Prichett could have been still more effctive by more closely scrutinizing all his statements. He asks the poor boy not to be misled by the plea put forward by commercial medical schools that they exist solely to serve the poor boy, because these "weak and ill-prepared medical schools can live only by drawing to their doors a mass of uneducated and unfit men, the great majority of whom are turned out from these low-standard institutions at the end of one or two years." Now, to convey the impression that the country is literally teeming with institutions which graduate a mass of uneducated and unfit men at the end of one or two years of so-called study is to prevaricate most outrageously. When he also says that no man can secure a good medical education in a proprietary medical school, "even if that school finds shelter under the charter of a well-known college or university," he simply lies. No other word expresses it. It is unnecessary for Mr. Pritchett to make glaring mistatements in order to strengthen his plea for better equipped medical men. (He does not mention women, and hence it is presumed he considers them unequal to the demands which the term "modern medicine" implies.) At any rate, the president of the Carnegie Foundation would better be more circumspect in his utterances.—The Lancet Clinic.

Commercialized Medical Journal.

There is a good deal of human nature in physicians, after all. When they start medical journals that are going to reform the profession, and get from beneath the cloud of commercialism that the other medical journals are laboring under, their avowals may well be taken with a grain of salt. It has been the fashion for editors of State journals to aver that they are standing on a higher plane than their neighbors who conduct "privately-owned" journals.

Some, even when speaking of their distasteful contemporaries, never neglect to call them "medical (?) journals," apparently believing that they have reached the acme of contemptuous expression when they put that question mark between the two words. Their first editorial columns glitter with expressions of high resolve. Never will their columns have advertising in them about which there can be any question, and they act as did the Pharisee of old who smote on his breast, as he stood erect, and thanked God that he was not af other men.

There are men in the medical profession who would be dishonest grocers if they followed that business; if they were lawyers they would be dishonorable ones. So as physicians they are not honest. Passing through a medical college does not reform them. Some of these men occasionally drift into the editorial chairs of medical journals. They profess great things. They are Pharisees in earnest. They do much smiting of their breasts, and express much thankfulness that they are not as other men.--Medical sentinel.

A Giant Prostate.—Dr. Pasquereau mentions (*La Gazette Medicale de Eantes.*) the case of a farmer, of seventy-four years of age, the beginning of his urinary troubles dating back twenty years. At the age of fifty-four, the patient whose past history was negative, observed that, for several months his stream was less marked. In addition to this, he was obliged to rise at night to urinate. One evening in a sober state, he was taken with retention, and his physician catheterized him. He urinated fairly well for a year, then had a second retention. His physician passed a catheter for the second time. Since that time, nineteen years, the patient catheterized himself, every four or five days, when he did not spontaneously evacute his urine. It was noted that his catheter was never aseptic. He carried it in his pocket, wrapped in a handkerchief, which he looked upon as very clean. At the beginning, the patient suffered for five or six years. His pain consisted of a sensation of burning, during his entire urination. The pain was seated in the hypogastrium, and irradiated to the penis, the perineum and the groins. He seems to have had a cystitis at this time. The pains did not recur, until about seven months ago. The patient stated that he often passed blood; the first time; fifteen years ago. He finally entered the hospital because he voided blood, more and more difficult. At his entrance, May 23, 1910, his general condition was good, but his urine was not clean. Rectal examination revealed a very large prostate. The two lobes were equally hypertrophied. Their consistency was elastic, with no indurated nodules. The pelvic cellular tissue was not involved. Taking the purulence of the urine into consideration, decided the reporter to operate in two times and he made a cystotomy May 24. The vesical, in conjunction with the rectal touch revealed a prostate as large as an adult fist. The median lobe was gediculated, large as an egg, of the shape of a bum and, acting as a valve to the neck of the bladder. The two lateral lobes were more voluminous than they appeared from a simple rectal touch. The entire hypertrophied mass formed a vesical base in which the index was pushed for its entire length. A Freyer's drain, with its extension, was put in this base. Three weeks later, June 14, the removal the prostate was made through the suprapubic button-hole, without enlarging it. The left index, gloved, was placed in the rectum; the right one in the bladder, and the decorticated, beginning with the median lobe. The prostate was removed in pieces, some very large, by means of the finger and forceps, being taken, through the opening in the bladder, as the ider was not to enlarge it and to do a true Freyer. That portion, which was adherent to the rectum, was seperated by the index, the latter not having been injured. With a full knowledge that all had been removed, the enormous cavity was cleansed for a few minutes, and Freyer's drain replaced. The broken up prostate proved to be an adenofibroma. When extracted it weighed four hundred and fifty grammes. It was weighed in the hospital's drug store. The pieces which were brought out, by the washing, were estimated at ten grammes, which would make the total weight four hundred and sixty grammes. The patient made a good recovery, there being no secondary hemmorrhage.

Surgical Treatment of Certain Cases of Glycosuria.—Robson (*British Medical Journal.*) Concluds an article as follows:

The early recognition and treatment of interstitial pancreatis or of pancreatic catarrh, by drainage of the bile ducts, and thus indirectly of the pancedatic ducts, and the removal of the cause, whether that be gall-stones, duodenal ulcer, or other conditions, may be the means of averting diabetes.

In certain diseases of the pancreas, even after the appearance of glycosuria, surgical treatment is well worth considering, as in a number of cases it has led to a complete disappearance of sugar from the urine, and in others to an arrest of the disease causing glycosuria.

Every case of diabetes should be consid-

ered from its etiological point of view, seeing that certain cases of glycosuria of pancreatic originare curable, and in others the progress of the disease may be arrested by suitable surgical methods that can be carried out with very small risk.

Goiter, Exophthalmic, Treatment of.—In the many cases of Basedow's disease which are due to physic influences, a cure can be obtained by internal treatment alone. In cases of greater severity internal treatment may also prove valuable, and should be given a trial previous to surgical intervention, since cases which have already been improved by it respond better to operation. As preparatory measures the author recommends a sojourn at some resort having an elevation of 1000 to 15000 meters (3300 to 4900 feet), cool baths and lotions, a diet poor in albumin and fats, a rest cure interrupted by systematic exercises, and the internal administration of phosphorus, arsenic, and iron. Measures which produce a rise in the blood-pressure, as well as active diuretics, are to be avoided. Iodine, thyroidin, and anti thyroidin give inconstant results, and their effect is but temporary. The X-rays and radium have not proven of great value in this condition, and since their use is attended with some danger, can only be employed by experienced operators. The resulting adhesions and induration of the surrounding tissues also render the operation more tedious. The use of galvanic or faradic currents can only be valuable in the case of markedly vascular goiters. Reduction of the swelling is not easily secured, and is but temporary. In a number of cases, indeed, the use of electricity has been found to do harm. Local hydrotherapeutic measures often prove very acceptable to the patient, but their action is feeble and is not well sustained. Injections into the goiter are somewhat dangerous. The use of animal extracts has so far not been productive of results, with the possible exception of thymus and pituitary preparations. —Kocher Munchener medizinische Wochenschrift.

The use of Solid Carbon Dioxide.—Morton, in the London Medical Lancet, says that the results he has obtained by this method of treatment are as follows: Most of the cases treated by him have been nevi, of which there were 167. As some of the patients had two or more to be treated, the total number of nevoid growths was 208: Capillary, 134; cavernous, 51; capillary and cavernous (mixed), 9; stellate, 5; lymphatic, 4; portwine marks, 5.

Capillary Nevi.—Of these, 212 cases were completely cured by a single application lasting, as a rule, 40 seconds; 8 had two, 2 had three, and 2 had four applications; 1 case, which was completely cured after three applications, was finished off by electrolysis.

Cavernous Nevi.—As might be expected, the results attained in this class are not so brilliant, but even here 33 cases were completely cured by a single application; 8 had two, 3 had three, and 2 had four applications; 5 cases were incompletely cured or not benefitted, and done by electrolysis.

In those cases in which the capillary and cavernous varieties were mixed carbon dioxide was used for the most part, but most of them there was a deeply seated cavernous part that was more suited to electrolysis.

Port-wine Marks.—This still remains the most difficult variety of nevus to deal with, and the writer states that while he cannot claim to have had results vastly better than can be obtained by other methods, such as radium, the results that can be had by the use of solid carbon dioxide are in his opinion, as good as any other, and the method is free from most of the objections that can be laid to the usual modes of treatment. Every portion of the mark has to be treated at least twice, and mostly three times. A single application appears to have little or no result so far as taking out the color is concerned.

Lupus Vulgaris.—Quite recently the author has had seven cases of this disease to treat, and so far as the immediate results are concerned there is every reason to think that in carbon dioxide we have a means of dealing with this scourage in no uncertain way. In treating these he removes crusts as far as possible and makes very firm pressure for at least forty seconds; a very intense reaction follows, with necrosis of the diseased area. The part must be treated with full antiseptic precautions, and even then the healing process will take from two to three weeks. In all the cases he has referred to complete healing has taken place, and so far as one can tell at this stage the result is a complete success. It is, of course, too soon to say if the cures will be permanent.

Moles and Warts.—The application of carbon dioxide is so successful in these cases that it is almost safe to say that there should never be a failure. For pigmented and hairy moles the crayon should be trimmed to the shape of the growth and applied with firm pressure for from thirty to forty seconds. In the reaction that follows the pigment is absorbed, and the hairs fall out. He says that he is not yet sure if this epilation has any permanence. In treating common warts he does not time the appli-

cation, but holds the crayon in contact until a narrow zone around the base of the growth is white and frozen. This is essential. In a few days the wart is found to be raised out of its place, and easily falls off.

Constipation in Infants.—Locomotion of the intestinal contents through the colon in infants is normally at a disadvantage as compared to that in adults because the colon is relatively longer, more convoluted, has freer peritoneal attachments and is muscularly weaker. In overfeeding and flatulent distention it can become not only permanently dilated and greatly convoluted, but also kinked and dislocated. Constipation from want of voluntary effort is a source of trouble during infancy, in addition to the forms of constipation which also prevail among adults. The younger the infant the more important it is to prevent this disturbance of function. Infants who have been trained to perfect regularity in this respect before they were two months old by skilled and persevering nurses pass through the whole of infancy without requiring any unnatural stimulus for daily evacuation. The cardinal measures for the prevention of constipation in infants may by given as follows:

1. Never employ aperients, purgatives, enemata or suppositories, especially during the first of life. 2. In breast-feeding make certain by means of the "test-feed" that there is neither underfeeding nor overfeeding; correct quantitative and qualitative defects by supplementary feeding. 3. Induce regularity of habit by systematic training.

In the curative treatment of constipation in infants the author advises against the old method of giving additional feedings of cream, which is very liable to induce symptoms of fat indigestion, foremost among which is a condition of aggravated constipation. Unless the evidence is clear that the percentage of fat is below the nutritive requirements, this plan has little to commend it. The treatment advocated is summarized as follows: 1. In all cases the exciting cause, such as deficiency or excess of food, or qualitative faults, must be treated by appropriate means. 2. The motions may be softened by free doses of petroleum emulsion, and in aggravated cases by small doses of drugs which promote intestinal secretion and the outflow of bile (sodium salicylate, sodium citrate, vinum ipecac-uanhæ and ammonium iodide). 3. Inertin of the bowel may be treated by massage, or massage combined with electricity, and in aggravated cases by cascara sagrada and nux vomica. 4. In cases in which a chronic colitis complicates the condition, a preliminary course of irrigation (Plombieres's method) may be employed. 5. In cases in which the motions are light colored and offensive, liquor pancreaticus (B.P.) may be added to the petroleum. 6. Regularity of habit must always be enforced by careful and systematic training.—E. Pritchard in The Practitioner, London, 1910.

Malaria and Agriculture.—A valuable lesson to be drawn from Dr. Spencer's article in the February issue of the *Transvaal Medisal Journal* lies in the illustration it affords of the fact that the term *cultivation of the soil* must be interpreted in the sense of scientific agriculture if cultivation is to be acknowledged as an eradicator of the Anopheline.

It has been abundantly proved in other countries that malaria disappears before the advance of scientific agriculture. Dr. Spencer shows that "cultivation" as practised in the districts with which he is familiar results in the *increase* of malaria. It is therefore justifiable to conclude that the methods of cultivation employed in those districts are crude and unscientific.

A principle of scientific cultivation is the preservation of subsoil moisture by the prevention of surface evaporation. The method necessitates the regular use of the cultivator or acme-harrow after rain or irrigation so that the land is left covered with a thick and even mulch of loose soil.

Dr. Spencer speaks of holes and irregularities present in "cultivated" soil. There are no such breeding places for Anopheles in land which has been cultivated scientifically; the beautifully even mulch abolishes them. If the agriculture of the districts referred to were conducted on scientific lines it would not have been possible for Dr. Spencer to trace so ably a distinct connection between the incidence of malaria and the vicinity of "cultivated" land.

A second lesson is made evident by these facts. With the extension of maize and fruit growing it is possible that irrigation will be introduced into those dry districts where malaria has not prevailed, solely owing to the lack of breeding-places for Anopheles. Beginners in the practice of irrigation—I speak out of past experience—are apt to forget that such crops as maize and fruit under irrigation require also adequate drainage. Stagnant pools and even a water-logged soil may eventually be caused by irrigation when proper cultivation is not carried out or when drainage is not provided; especially if, as is frequently the case, the irrigation shows *trop de zele* on the part of the farmer. Thus the Ano-

pheles may conceivably be introduced into new districts in the wake of extended agriculture: Where the nature of the crop—as in the case of sugar-cane—requires the permanent presence of flumes, trenches, and canals, efficient anti malaria measures are necessary, such as attention to the construction of the canals, caréful removal of weeds, frequent flushing, and stocking with fish which consume the larvae pupae and eggs of Anopheles.

The conclusion may be suggested that education in the suitable methods of malaria prevention should go hand-in-hand with education in scientific agriculture in this country.

Treatment of Ringworm.—The several antiseptics advocated for outward application in cases of ringworm are far from satisfactory, the prolonged duration of the disease proving their inefficiency. In dealing with the numerous cases of pediculosis in fever wards, E. Lynn Jenkins reports that he and his associates always employ the essential oil of sassafras, which, without exception, they find acts as a specific in such cases.

When both pediculosis and ringworm occurred in the same scalp, it was noticed that the latter disease also reacted favorably to this preparation.

This led them to test the possible usefulness of the oil for ordinary cases of ringworm, and so far the results have been most happy. The hair is cut closely around in order to identify the patches, the application of the oil being made twice a day by means of a camel-hair brush. This is continued for a few weeks, as the case indicates. No irritation is produced, while the preparation is most pleasant to use. Not only is the spread of the infection prevented, but that the fungus is being destroyed with certainty is recognized in two or three weeks, by commencing development of fine hairs.

In country practice, where treatment by X-rays is impracticable, this method will prove a valuable addition to the several means recommended by various authorities. —British Med. Jour.

Hip-Joint Operation.—When carrying out an amputation of the hip-joint at the Great Northern Hospital, Mr. Mower White said the operation of amputation at the hip-joint, owing, first of all, to the fact that the surgeon could almost exclude sepsis from the wound, and secondly, because it could be done almost bloodlessly, had become a very much safer procedure than it was in former days, when a considerable mortality resulted from shock, this being largely due to loss of blood, and this mortality was till further increased when, as was often the case, the wound became septic within a few days of the operation. He drew attention to the fact he had during the course of the operation injected 1-3 gr. of Eucaine into the great sciatic nerve about ten minutes before dividing this structure. This was done with a view of reducing shock. So that, on the other hand, sufficient time for the Eucaine to take effect might be allowed, whilst on the other the procedure itself should not prolong the operation, the nerve was exposed by dividing the abductor muscles as the first step in the amputation after ligature of the main vessels and the making out of the skin incision.—Medical Press and Circular, London,

Shaving and Skin Disease.—In a recent issue of the British Medical Journal it was stated that hairdressers most naturally feel grave concern regarding the result of several actions at law in which damages have been awarded for what is known as a "foul shave." Cases at Hull and Huddersfield were lately followed by another in the Manchester Court of Record, when the plaintiff said that while being shaved by a local hairdresser he received a slight cut. The same evening he noticed that watery matter came from the wound. Several days after a skin disease developed, and he went to a doctor, who pronounced it to be impetigo contagiosa. This medical man in his evidence said he had no doubt the cause of the disease was the cut which, when he saw it, was surrounded by a number of tiny blisters. The period of incubation, he said, was from twenty-four hours, or even less, to forty-eight hours before the specific signs of the disease would be seen, and it would take from one to two days for matter to form. The witness added that the germ of the disease need not necessarily have been on the razor, but might have been introduced by the towels or sponges used in the shop. For the defence Dr. Sankey, police surgeon, said that matter could not possibly flow from the wound an hour or two after it was caused, nor could the disease be spreading over the face and neck the following day. Dr. Wolstenholme, medical referee to the Salford Hairdressers' Association, said that impetigo could be got in numerous other ways besides shaving; a frayed collor, for instance, might be the cause, or plaintiff might have had the germs in him beforehand. In the circumstances it was impossible he should have contracted the disease at defendant's saloon. The judge instructed the jury that for the plaintiff to be entitled to a verdict it was necessary to prove that "illness had been caused by an act for which the defendant

was responsible. The jury found for the plaintiff, and awarded $120.00 damages. Without criticising the decision of the jury; the serious result to the hairdresser of the case quoted above may be used to point a moral. Of late years there has been an immense improvement in the hygienic conditions of shaving saloons, and it is within the power of every hairdresser to adopt such precautions that the possibility of any skin disease being contracted on his premises is practically excluded. Leading members of the trade have for some time past made it a rule that before and after use on each individual customer the razor should be dipped in a vessel containing diluted izal fluid, and in many cases the soap used also contains the antiseptic virtues of izal. The careful hairdresser will also insist on the sponges, rubbers and brushes used in his saloon being thoroughly saturated with izal solution at frequent intervals, and when evidence of such care is produced it may be safely affirmed that no jury would hold a hairdresser responsible for any skin disease among his customers. —Dublin Medical Journal.

What's the Matter with Western Medical Education?

The answer is: Nothing; it's all right, as shown by the results. For example, the edutational number of the J. A. M. A., May 21st, gives a summarized report from all the state boards of medical examiners for the year 1909. During this year the Denver and Gross College of Medicine had 19 graduates examined in Colorado, and of these one failed (he made good at the second trial); also 12 graduates examined in ten other states, with no failure. In the same year the medical department of the University of Colorado was represented in the examinations in Colorado and five other states by ten graduates, with no failure. The percentage of failure for regular Colorado graduates was, therefore, one in 41, or about 2½ per cent. On the other hand, 77 American medical colleges had over 10 per cent of failures, among their graduates in 1909 while Canadian graduates averaged 24.4 per cent. of failures, and of foreign graduates 42.2 per cent failed in their state examinations.

The report of Dr. S. D. Van Meter, secretary of the Colorado State Board of Medical Examiners (J. A. M. A., Aug. 27), for the regular quarterly meeting, July 5, shows that 25 candidates undertook the examination, and four failed to pass it. Of the successful applicants, two from the Denver and Gross College of Medicine ranked first and fourth; two from Harvard, second and third, two from the University of Colorado, fifth and sixth; and two from Rush, eighteenth and twenty-first.

Of course, it is freely granted that a state board medical examination is not a complete criterion as to a person's fitness for practicing medicine. Nevertheless, the belief is so prevalent as almost to amount to an axiom, that western medical schools train young men and women how to help the sick and suffering, whereas eastern and more particularly European universities, turn out laboratory cynics and dead-room nihilopaths.--Editoral in The Denver Medical Times.

Opium Dens in France.

There has recently been tried at Brest a case in which, as the result of opium smoking, two young women had died, presumably from narcotic poisoning. The prisoners were four ladies of easy virtue, a photographer, and a pharmacit's asssistant, who were prosecuted for the illegal possession of, and traffic in, opium. After hearing the defense the judge condemned each of the women to a month and each of the men to forty days' imprisonment, and in addition each prisoner was fined 100 francs, stay of execution being refused. The public prosecutor in his address bore eloquent witness to the pernicious effects on the *morale* of the army and navy caused by the opium habit, and the commissioner appointed to inquire into the case in addition gave out that 40 per cent. of the officers in the Brest garrison were habitual opium smokers. There may, of course, be some exaggeration in these statements, but the Journal de Medecine, to which we owe the account of the case, thinks it extraordinary that the authorities should have thought it worth while to prosecute these wretched women, who after all were but "supers" in the tragedy, while the real actors remain unpunished. The opium dens are well known to all the officers, and it would need but a slight display of official energy to close them all. Sufficiently severe penalties could then be devised to put a stop to the trade of the importers of the drug. It is probable that the Chinese will be rid of their opium dens long before Europe will be of its dens.—The London Hospital Review.

Kissing the Book.

It would appear from steps which are being taken in some of the Australian States that the old method of taking the oath by kissing the Bible will shortly be a thing of the past. On several occasions objections have been made by medical men and others against the practice of kissing a Bible which has been in use for years, and the pages of which are not only dirty, but

have been kissed by numbers of persons who may have had contagious sores of various kinds on the tongue or lips. It is reported that the practice of taking an oath by kissing the Bible was recently superseded in Perth Police Court. The new form of swearing under the Evidence Act 1906 W.A. is for the witness to hold up his hand and declare—"I swear by Almighty God to tell the truth, the whole truth, and nothing but the truth." In introducing the departure, the P. M., Mr. Roe, said he had noticed a witness with a cancerous tongue kiss the court Bible, and had ordered the book to be put away. The matter is also receiving attention in Tasmania, and we learn that the Evidence Bill, which is before the Assembly, contains a provision that kissing the Bible for oath-taking be discontinued, and that the utterance of the words, "I swear" should be sufficient. Everyone must be convinced of the advantages of the new method of taking the oath, and that the abolition of the old insanitary practice will not diminish the sacredness of the oath. —The Australian Medical Gazette.

Effect of Tuberculosis on the Heart.—Pottenger in Archives of Internal Medicine says:

1. A relative low blood-pressure is found in tuberculosis, especially in advanced tuberculosis.

2. The factors which favor low pressure are the effect of the toxins on the vasodilators, the weakness of the heart muscle and general wasting,

3. The factors which have a tendency to maintain pressure are hypertrophy of the heart muscle and thickening of the systemic arteries.

4. Thickening of the systemic arteries occures perhaps as a result of the action of the toxins on the vessel wall and is found especially in patients who have had tuberculosis for some time.

5. Myocarditis is a condition very common in advanced tuberculosis and one which, if recognized, yields to appropriate treatment in many instances.

6. It is difficult to give an opinion on the heart tones in advanced tuberculosis because conditions surrounding the valves are changed by such things as infiltrations, cavities, emphysemas and contractions.

7. In the majority of advanced cases (99 out of 130) the heart is displaced and working at a disadvantage.

8. In estimating the size of the heart it must be remembered that as the heart pushes over to the left it pushes backward and consequently the lateral diameter as taken on a level with the fourth interspace does not give an adequate idea of the real or true size of the heart; also that the hypertrophy of the right heart often throws the left ventricle backward, producing the same result.

Digitalis VersusSparteine.—"Death from digitalis" is the way Waugh says he would have filled out the death certificate of a man who for some years had been afflicted with a mitral double lesion and for whom digitalis had been prescribed when compensation was failing. Improvement followed the first dose, but the difficulty returned a few days later with increased force. The dose of digitalis was then increased, but the patient rapidly sank. In discussing the action of the digitalis Waugh continues:

"When the digitalis was first administered, of its four glucosides digitonin began almost immediately to exert its influence. Although it slightly relaxed the force of the heart, it acted particularly upon the terminal arterioles, and by relaxing these facilitated the work of the heart, consequently a sense of relief was the first effect of the drug manifested. A little later, within half an hour, the digitalein action commenced, and from this some tonic influence upon the heart was manifested without seriously interfering with the vascular relaxation induced by the digitonin. This tonic effect lasted from two to four hours, during which the patient felt considerable relief; and this effect was sustained by successive doses of the drug.

On the next day the action the digitalin began, and while there was still more force imparted to the cardiac contraction, the relaxant influence of digitonin upon the arterioles was overcome by the more powerful and persistent contractile power of digitalin, and the arterioles commenced to contract.

By the next day the digitoxin began to manifest its tremendously powerful activity, with the result that the arterioles were strongly contracted lessening their lumen and compelling the heart to extra exertion to force the blood-stream through the narrowed orfices. This action was constantly reinforced by successive doses of digitoxin. The pills being administered every four hours, the digitoxin effect was rendered continuous, whereas the opposing influence of the digitonin only lasted for one-half to one hour after each dose. By the accumulative action of the digitoxin the renal arteries were finally so contractad that only a few drops of blood could be squeezed through them. Almost total suppression of urine followed, and the man died."

In treating patients with chronic valvular disease, especially the aged, Waugh reports that he obtained exceptionally good

resluts from the administration of 1-6 grn. qoses of sparteine, repeated not more than six times in twenty-four hours. This duantity is sufficient and may be continued for months with benefit.—Canadian Jour. Med. and Surg.

Spastic Constipatton and Its Treatment-— Thesen in a lecture on spastic con- (*Tidskrift for den Norske Laegeforening,*) stipation, points out that, as a rule, this is but one of the symptoms of neurasthenia, but at the same time there are many neurasthenics who suffer from other kinds of constipation. According to the author, the most characteristic physical sign of this affection is found on exploration of the rectum. Instead of finding a cavity filled with feces, as common in other forms of constipation, the rectum fits closely round the examining finger, almost like the finger of a glove. Sometimes there is even difficulty in inserting it. Feces are seldom found. There is no pain or tenderness about the anus, and the surroundings of the rectum are, as a rule healthy. On insertion of the rectoscope, which is sometimes difficult, one occasionally finds the veins of the mucous membrane abnormally large. Patients with this affection very often also suffer from hyperchlorhydrti and spasms of the pylorus. If such a patient should go for a week or longer without any action of the bowels, the condition described by Leube as "ileus spasticus" is apt to occur, which is important to remember, as such patients have sometimes been subjected to unnecessary operations.

The treatment of spastic constipation is, according to the author very successful, if individualized and the general neurasthenic condition taken into account. For instance, one patient, a professional musician, was cured by being forbidden all music and sent to the hills on a skeeing tour. Another, an overworked official, was told to keep away from his office for a few weeks and spend the day at his piano, when his nervous system recovered its stability and his constipation was cured. Sport and gymnastics, if not overdone, are useful in this as in other nervous complaints, but abdominal massage, as a rule, makes the patient worse. Senger, of Vienna, who is of the opinion that the spasms are restricted to the lower part of the rectum, uses an apparatus for dilating it forcibly, but the author has not been successful with his method. The author advocates a diet rich in fats, but materials mechanically irritating must be avoided. Sour milk to which fresh cream has been added is useful. The patients suffering from hyperchlorhydria he orders, during the cooler months, olive oil in doses of 3 to 6 tablespoonfuls daily. Ordinary water enemas are, as a rule, useless, but Fleiner, who first described and named this disorder, uses enemas of olive oil, and these the author has found very useful if given in the following manner: After the patient has gone to bed and assumed the horizontal position, a soft rectal sound is inserted and attached to an irrigator containing 2 to 4 deciliters of olive oil at a temperature of 40° C., and the oil is allowed to flow in freely. The patient is instructed to keep the oil in until the following morning, which as a rule is easy. Such an enema usually produces a copious evacuation. Most of the ordinary purgatives are, of course, contraindicated in this affection, but salines may be used if necessary, as they act less by increasing the tonicity than by preventing absorption of water by the bowel. Patients with hyperchlorhydria are benefitted by magnesia powders after meals. Belladonna has been lauded as a specific in this affection, but it often fails, probably because it must be given in doses too small to have the desired effect on the bowel. It is either given as the extract, usefully combined with magnesia, or as a suppository, as strong as possible. The author uses 3 cg. of the extract in each suppository three times a day.—British Medical Journal.

X-Ray Treatment of Graves's Disease.— Schwartz, of Vienna (*Arch. d'elec. med.*) claims that radio-therapeutic treatment of Graves's disease has as high a percentage of success as the surgical method, and has none of the danger and pain incident to the latter. He insists, moreover, that x-rays in exophthalmic goitre have a distinct etiological basis, one of their general properties being their power to diminish glandular secretions. Soon after the irradiation of the thyroid a modification of the nervous symptoms is generally observed, and this is frequently followed by a sudden change in the general nutrition. In some cases the patient puts on weight very rapidly; a gain of 6 or 8 killegrammes (13 or 17 pounds) in a month is quite common. Within a short time there is often also a diminution of the exophthalmos, although this is a most persistent symptom, especially in cases of long standing. Out of 40 cases under the authors observation, after radiotherapeutic treatment had been applied for a mean period of three months, there was increase of weight in 26; diminution of the pulse-rate in 36; amelioration of the nervous symptoms in every case, of the exophthalmos in 15, of the goitre in 8. The improvement is constant for the nervous symptoms and almost constant for the tachycardia,

and on this latter point Kraus is quoted as saying that when the tachycardia has disappeared for a certain time, one may consider Graves's disease as cured, although other symptoms may continue. On these grounds the author claims 90 per cent of successes for radiotherapy, which is at least equal to the percentage of operative successes.

As to technique, he points out the skin of the cervical region is normally more sensitive than that of other regions of the body, and that this sensibility is further increased in sufferers from Graves's disease. Therefore too strong doses must not be given. He irradiates the neck, first in the anterior direction, then in the left and right lateral directions, with rays filtered through a piece of glass of 2 mm. thickness. The dose is ½ Sabouraud, or 2 kaloms of the Schwarz Fallungs radiometer, applied at intervals of three weeks—that is to say, first week, neck, anterior direction, ½ Sabouraud; the following week right lateral direction, ½ Sabourand; a week later, left lateral direction, ½ Sabourand; and recommencing eight days later with the same dose in the anterior direction. This cycle of irradiations must be followed uninterruptedly frequently for six months.—British Medical Journal.

Joint Transplantation—Lexer (*Wiener Klin. Wochensch.*) at a recent meeting of the German Surgical society referred to the case in which two years ago he had transplanted an entire knee joint taken from a freshly amputated leg—the first operation of its kind. The patient now has fairly good function in the transplanted joint, which shows that this plan of treatment gives permanent results. Since then the author has resorted to this procedure in another case, that of a man twenty years old. The implanted joint has united completely and now, four months after the operation, 30 degrees of flexion is present. At the present time it is covered only with skin, as the lacerated tendon of the rectus and the patellar ligament had to be removed. It is proposed, however, to later perform a plastic muscle operation after a sufficient degree of flexion has been obtained. Experience has shown that, after such transplantations, the leg should be kept at rest for at least one-half year, as too early bearing weight upon it may injure the cartilage. He referred to two other cases. One of these was that of a man, fifty years old, in whom the lower half of the ulna had been resected two years previously for sarcoma and the defect replaced by a section of the lower half of the tibia. The transplanted bone has been completely preserved and the mobility of the arm is normal in every respect. The other case was that of a girl, twenty years old, in whom the upper end of the left tibia, besides the articular cartilage, had been resected to the extent of 9½ cm. for sarcoma. Immediately after the resection an equal sized portion of tibia was taken from an amputated leg, together with its articular surface. The medullary cavity of the patient's tibia was filled up with a plug of bone taken from the fibula, together with its periosteum, which served at the same time as a means of union with the implanted segment. The operation was done eight months ago, and at present the patient is able to walk without a cane and has complete mobility in the knee-joint. It is his custom in sarcoma of bone to resect only when the growth is of myelogenous character and has not invaded the cortical portion, recurrences occasionally take place. In the case of a twelve-year-old girl in whom five months before the author removed a central sarcoma of the lower end of the femur, together with the articular cartilage, and transplanted a corresponding piece of fresh bone from a femur, it was found necessary to amputate at the knee-joint on account of recurrence, The child, however, had acquired excellent function, beidg able to run and jump about. In still another case amputation was later performed at the urgent request of the patient, who became mapkedly neurotic because of the firmly fixed idea that bone transplanted from another person must ulcerate through, there being a discharging fistula caused by the plug of bone in the medullarp cavity. Examination of the specimen, however, showed that the implanted bone had completely united, and the cartilage was well preserved, while the ligamentum patellæ had firmly united.

Danger Due to Substitution.

Hardly another of all the preparations in existence offers a wider scope to imposition under the pea of "jnst as good" thau the scientifically standarldized Eucalyptol.

The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proved injurious upon application, the firm name of Sander & Sons is llicitly appropriated, the make-up of their goods imitated and finally the medical reports commending on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit.

This fraud, which was exposed at an action tried before the Supreme Court of Victoria at elbourne, and others reported before in the medical literature show that every physician should see that his patient gets exactly what he prescribed. No "just as good" allowed.

Book Notices.

A Handbook of the Surgery of Children, by E. Kirmission, Professor of the University of Paris, Surgeon of the Hospital for Sick Children, etc. Translated by J. Keogh Murphy, M. C. (Cantab.) F. R. C. S. Surgeon, Miller, General Hospital for South East London, Senior Assistant Surgeon Paddington Green, Children's Hospital. Henry Frowde, Oxford University Press, Hodder and Stoughton, Warwick Square E. C., 1910.

From the author's preface to this volume we quote the following: "I wish above all to write something that will be really usefull; useful both to the medical student who is anxious to acquire sound principles for the practice for his profession, and useful to the practitioner obliged to put up with the numberless calls on his time and patience in the practice of that profession." The author, as it occurs to us, has unquestionably succeeded in this effort of his.

In this book he takes up and discusses the two dominating subjects of Infantile Surgery.

This volume is neatly bound, carefully indexed and contains a large number of illustrations, all of which are of a very high type and add a great deal to the clearness of the subject. The book contains 822 pages of reading matter.

It certainly affords us great pleasure to recommend this volume to both the medical student and the practitioner.

The Practical Medicine Series comprising ten volumes on the Year's Progress in Medicine and Surgery. Under the General Editorial charge of Gustavs P. Head, M. D., Professor of Laryngology and Rhinology, Chicago, Post-Graduate Medical School. Charles L. Mix, A. M., M. D., Professor of Physical Diagnosis in the Northwestern University Medical School.

Volume VI. General Medicine. Edited by Frank Billings, M. S., M. D., Head of the Medical Department and Dean of the Faculty of Rush Medical College, Chicago, and J. H. Salisbury, A. M., M. D., Professor of Medicine, Chicago Clinical School. Series 1910. Chicago: The Year Book Publishers, 40 Dearborn Street.

This, the sixth volume of the Practical Medicine Series, like all the preceding ones, is a book that will be of great value to the medical profession. In this volume the authors take up and discuss the following subjects: "Infectious Diseases," "Diseases the Mouth," "Diseases of the Esophagus," "Diseases of the Stomach," "Diseases of the Intestines," "Diseases of the Liver," "Diseases of the Pancreas," "Diseases of the Peritoneum," etc. The price of the book is $1.50. Price for the full series $10.00. This volume is neatly bound, and contains 352 pages of reading matter.

We are glad to recommend this volume to the profession.

The Diseases of the Nose, Mouth, Pharynx and Larynx. A Text-book for students and practitioners of medicine, by Dr. Alfred Bruck (Berlin). Edited and translated by F. W. Forbes Ross, M. D., Edin., F. R. C. S., England. Late Civil Surgeon to His Britannic Majestys' Guards Hospital, London; Assistant North London Hospital for Consumption and Diseases of the Chest; Clinical Assistant Metropolitan Hospital for Diseases of the Nose and Throat, etc:, assisted by Frederich Gans, M. D. Illustrated by 217 figures and diagrams in the text, many of which are in colors. New York: Rebman Company, 1123 Broadway.

This volume is intended to meet the requirements of the general practitioner. The subject is divided into four parts as follows: Part I. Diseases of the Nose and its accessory cavities;¡Part II. Diseases of the Mouth; Part III. Diseases of the Pharynx; Part IV. Diseases of Larynx and Trachea.

The large amount of material touching "npon these subjects has been condeused, yet the author has confined himself to the essential points so closely that it is almost marvelous how he has given us so much good literature in so small a volume. The subjects are thoroughly and clearly discussed, and this book will unquestionably be a useful addition to the library of medical practitioners.

The volume contains 615 pages of reading matter. The illustrations are numerous and of a very high type. The price of the book in cloth binding is $5.00.

The Practical Medicine Series comprising ten volumes on the Year's Progress in Medicine and Surgery, under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School; Charles L. Mix, A. M., M. D , Professor of Physical Diagnoses in the Northwestern University Medical School. Volume VII. Pedriatrics, edited by Isaac A. Abt, M. D., Clinical Professor of Pedriatics, Northwestern University Medical School, with the collaboration of Mary Michael, M. D. Orthopadic Surgery, edited by John Ridlon, A. M., M. D., Professor of Orthopedic Surgery, Rush Medical College, with the

collaboration of Charles A. Parker, M. D. Series 1910, Chicago. The Year Book Publishers, 40 Dearborn Street.

This volume, which deals principally with "Pediatrics," is one which will be found useful by general practitioners.

The subject is very systematically arranged, and contains an immense amount of valuable instruction. This is the seventh volume of a series of ten published by the Year Book Publishers.

The price of this volume is $1.25. It contains 242 pages of carefully indexed reading matter, with quite a number of illustrations inserted, which add greatly to the clearness of the volume.

Transactions of the Thirty-second Annual Meeting of the American Laryngolical Association, held at Washington, D. C., May 3rd, 4th and 5th, 1910, New York: Published by the Association, 1910.

This volume of transactions is unusually good this year. It contains a goodly number of excellent papers which were read before the May meeting of Association. The President's address is very fine indeed. Among some of the most important articles are the following: "Ozena and Respiratory Gymnastics," by Marcel Natier, M. D.; "Syphilitic Stenosis of the Oro-Pharynx," by J. M. Ingersol. M. D.; "Exoctoses of the Accessory Sinuses," by Harris P. Mosher, M. D.; "Esophageal Divesticula," by Emil Mayer, M. D.; and "Diagnosis of Peridontal Cysts of the Superior Maxilla," by Norval H. Pierce, M. D. These articles are all very good indeed and the illustrations connected with them are of an extraordinary type.

International Clinics. A Quarterly of Illustrated Clinical Lectures and especially prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pædiatrics, Obstetrics, Gynæcology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene and other topics of interest to students and practitioners, by leading members of the Medical Profession throughout the world. Edited by Henry W. Cattell, A. M.; M. D., Philadelphia, U. S. A., with the collaboration of Wm. Osler, M. D., Oxford; John H. Musser, M. D., Philadelphia; A. McPhedran, M. D., Toronto; Frank Billings, M. D.; Chicago; Chas. H. Mayo, M. D., Rochester; Thos. H. Rotch, M. D., Philadelphia; John G. Clark, M. D., Philadelphia; James J. Walsh, M. D., New York; J. W. Ballantyne, M. D., Edinburgh; John Harold, M. D., London; Richard Kretz, M. D., Vienna; with regular correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Volume III. Twentieth series, 1910. Philadelphia and London. J. B. Lippincott Company, 1910.

This volume contains many interesting and valuable articles on the above named subjects, which the medical students as well as the practitioner will find useful. It contains 311 pages of reading matter, is nicely bound, and the illustrations are above the ordinary.

It gives us a great deal of pleasure to recommend this volume to the medical profession.

The practice of Medicine. A Guide to the Nature, Discrimination and Management of disease. By A. O. J. Kelly, M. D., Assistant Professor of Medicine, University of Pennsylvania; Professor of Medicine, University of Vermont. Octavo, 949 pages, illustrated. Cloth, $4,75, net. Lea & Febiger, Publishers, Philadelphia and New York, 1910.

Dr. Kelly is throughly prepared for the writing of a work covering the modern practice of medicine. As a teacher he holds a distinguished professorship in the University of Pennsylvania, a position only won by many years of meritorious work, and he has enjoyed even longer experience as a general practitioner. Being chief pathologist to one of the foremost hospitals in America, he is throughly grounded in this fundamental science. His purpose in undertaking the great labor involved in writing a comprehensive book on present-day practice is to give the student and junior physician a guide to the nature, discrimination and management of disease, containing the essentials without excess of detail. He has devoted most space and attention to the practical aspects of medicine, to the elucidation of principles exemplified in disease at the bedside, in hospital wards and clinics and in the consulting room, and to symptomatology, diagnosis and treatment. These main objectives are presented in their natural connections by means of brief sections on etiology, essential anatomical lessons and pathological physiology. Such knowledge is essential to a correct understanding of morbid phenomena, to ability to forecast and provide against continuences, to judgement as to the course, duration and termination of a disease, and to skill in treatment and prophylaxis. Under each disease at least one method of treatment of known value is given, and formulæ are presented as an aid to the junior practitioner in times of stress. The reader who masters the knowledge so rationally presented in this authoritative book should have no difficulty in passing his collegiate and State examinations and in proving himself a successful practitioner.

The November Wide World Magaziue.

One of the most interesting and amusing articles in the November Wide World Magazine is "The Servant Question in Japan," by Evelyn Adam. Every country—and especially every so called civilized country —has its "servant question," and this article, written by a lady who has spent many years in Japan, deals with the curious little ways of the servants, male and female, of the Land of the Chrysanthemum. It will be read with infinite interest by every housewife who knows anything at all of the trials and tribulations of "hired help." Another interesting article and one full of valuable information is "A Naturalist in New Guinea," by A. E. Pratt. The author narrates his manifold experiences among the primitive inhabitants, many of whom are extremely treacherous and bloodthirsty? Mrs. L. M. Fagan, whose husband, General Fagan, was appointed Regent of Bustar, one of the Feudatory States of India, during the minority of the Rajah, describes the manners snd customs of the people of this "Unknown Caud"; Mrs. A. E. Scott writes of her "Honeymoon on the Zambest," and there are many other stories and articles of a character which one has come to look for in this unique and remarkable magazine.

Miscellaneous.

The new State Hospital for the Insane of South Carolina will be located about six miles north of Columbia. The site contains about 2000 acres of land.

The erection of the new buildings will be commenced as soon as possible, and rapidly pushed to completion.

The members of the asylum commission are: Dr. J. W. Babcock, superintendent of the State Hospital for the Insane; Dr. Robert Wilson, chairman of the State board of health, Charleston: Judge R. O. Purdy, Sumter; Leroy Springs, Lancester; Dr. George B. Cromer, Newberry.

The physicians of Clinton, S. C., entertained the members of the Third District Medical Association of South Carolina at its third meeting on Sept the 8th.

Following a most enjoyable banquet, which was given the visiting physicians at the Clinton Hotel, the following programme was rendered:

"Brain Surgery," W. C. Black, M. D. Greenville.

"The Uses of Apomorphia," R. B. Epting, M. D., Greenwood.

"Report of Trip to St. Louis to the American Medical Association Meeting," E. A. Hines, M. D., Seneca, secretary of the South Carolina Medical Association.

"A Trip to the Mayos," G. P. Neel, M. D., Greenwood.

"Evils of Mouth Breathing," E. W. Carpenter, M. D., Greenville.

"Arteriosclerosis and its Treatment," Jas. M. Kibler, M. D., Newberry.

"Retroflexion and Retroversion of Uterus," Curram B. Earle, M. D. Greenville.

Report of committee on constitution and by-laws.

Dr. F. M. Monroe, an esteemed citizen and prominent physician of Latta, S. C., died at his home on October the 21st. after an illness of several weeks. He was seventy one years old, and had been a practicing physician for about forty years, until three or four years ago, when he was forced to give up his practice on account of his bad health. Dr. Monroe graduated from the Medical College of South Carolina in 1861.

Dr. J. A Regan, one of the oldest and best known physicians in North Carolina, died at his home in Weaverville, on October the 24th.

For several months Dr. Regan, who was 86 years old, had been in failing health, but his severe illness lasted only a very short time.

Dr. Regan studied medicine at Vanderbilt University, Nashville, Tenn. After his graduation he begun the practice of his profession in North Buncombe county, this State, where he met with unusual success. He later moved to Weaverville, where he lived until his death.

He was not only active in the interest of his own profession but also very helpful in the educational and religious features of his community. He was the founder of Weaverville College, and was its first president.

In the death of Dr. Regan, the editor of this Journal feels that he has lost a personal friend and a wise counselor, and that the community in which he lived has lost a most highly esteemed citizen.

Dr. Reagan was an active member of the State Medical Society, always doing his best to aid the younger members of the profession. He joined the State Society in 1881. In 1886 he was elected a member of the Medical Examining Board of the State. During his term of office he was considered by his associates on the Board as one of its strongest members and the young men whom he examined universally regarded him as a very intelligent and fair examiner.

Dr. Emile B. Quillan, of Wilmington, N. C., and Miss Leilla Griffith Owings, of Baltimore, Md., were married on October the 18th.

Dr. Quillan is assistant chief surgeon of the Atlantic Coast Line, and is a young physician of rare promise.

He graduated from the Medical Department of the University of Maryland in 1904, and completed his post-graduate work at the New York Polyclinic in 1908.

Dr. and Mrs. Quillen will live in Wilmington, where Dr. Quillen has already met with great success as a practitioner.

Dr. E. C. McKowen, of Jackson, La., who has been convicted of the murder of the murder of Mr. E. H. Judson, a patient at the Louisiana State Asylum for the Insane will be carried to the State Penitentiary of Louisiana in a few days, to serve a life time term.

Dr. McKowen was a highly esteemed citizen, and peominent physician of Jackson. He received his medical training at Tulane University, New Orleans, La., having graduated from this well known institution in 1886.

The After-Results of Abdominal Operation on the Pelvic Organs.

Giles (Jour. Obst. and Gyn, British Empire) has considered the effect of operation for the removal of the appendages of one side and draws the following conclusions: (1) That these operations have no detrimental effect on the health of the patients, about 90 per cent, being better after the operation than bfore. (2) That the relief of symptoms is well marked in 87 per cent., the patients being free from or having less pain, while 5 per cent. were free from pain for a time, but developed pain later from other causes. (3) The removal of the appendages was followed by irregularity, diminution or cessation of mentsruation in 3.5 per cent., and in 2.5 per cent. there was diminution of the sex instinct. (4) That the chance of disease developing in the appendages of the opposite side is not great. Such an occurrence took place in about 10 per cent. Consequently, in view of the definite value of the remaining ovary and tube, it is always worth while preserving them when they appear healthy. Soiling of the peritoneum with the contents of ovarian cysts favors the occurrence of the later disease: (5) That the remaining tube and ovary have a considerable value from the point of view of subsequent pregnancies, 25 per cent. of the married women under 40 years of age become pregnant, but there seemed to be greater liability to the occurence of extra-utrine pregnancy than in other subjects. (6) A study of the sex of the children in the relation to the side on which the remaining ovary was situated, definitely refutes the theory that one ovary produces males and the other females.

New Stain for Spirocheta Pallida.

Hoffman, reviewing the recent literature of this subject, remarks that the methods hitherto at command for the examination of spirochaeta pallida have the great disadvantage for the peneral practitioner that they consume too much time and require extreme care in their manipulation. These difficulties are now suddenly resolved by Burri's Indian ink process, which combines the highest degree of speed and simplicity. A very small quantity of serum obtained by means of a pipettte from the bottom of a chancre or a papula. is placed on an object glass, a small drop of a ten per cent. solution of Indian ink is added and the two are intimately mixed and spread in a moderately thin layer over the object glass, and allowed to dry in the air. The microscopic examination shows the spirochactes uncolored, and glistening in the transmitted light, upon an even brownish ground. The whole examimotion is said to take scarcely a minute; and Hoffman expresses the opinion that the process will shortly become the common property of every physician in the same way as the stain for tubercle bacilli.—Berliner Med. Woch.

Induction of Labour.

Dr. Little in the Journal of Obstetrics and Gynœcology of the British Empire, is strongly in favor of allowing most patients with contracted pelvis to go to term; he finds that in the last eighty-seven such women he has treated, seventy had normal labors, and only seventeen required interference. If, after a trial of the second stage, the head fails to engage or is arrested, version, pubiotomy, or Cæsarean section are the alternatives. Much more often he would induce labour in a normal pelvis. The proportion of patients who go beyond term and have dystocia from the unusual size of their babies, is, the Doctor believes, larger than is generally supposed, and for these he would induce labour at full term. Other indications are heart disease, eclampsia, placenta, prævia, nephrit,is chorea, tuberculosis, prolapse of cord, etc. The method used is one not described in English text-books. In the lithotomy position, and with full antiseptic precautions, the anterior lip of the cervix is fixed with a tenaculum. A medium-sized rectal tube, about 25 cm. long, is then inserted thus: Small holes about 0.3 cm. in diameter are made in the tube at intervals of 5 cm., and a flexible metal director is pushed into the tube. Director and tube are then passed through the cervix; the director is then steadied, and the tube pushed further on with forceps. The director is then inserted into the next hole in the tube, passed again through the cervix, and the tube again pushed off it. Thus the tube passes through the cervix as if it were solid, yet is allowed

Gastric Catarrh

with its fermentation, nausea, pain, distress and other disagreeable symptoms, is rapidly and often permanently relieved by the use of

Gray's Glycerine Tonic Comp.

and this not infrequently when other remedies have proven unavailing. The reason is easily found in the general reconstructive and upbuilding influence of this effective tonic. In other words, it overcomes local conditions not only by directly promoting the functional activity of special organs and tissues, but also through substantially increasing general bodily vitality.

Thus it is that the therapeutic effects from "Grays" are far reaching and permanent—not superficial and fleeting.

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LISTERINE is a powerful, non-toxic antiseptic. It is a saturated solution of boric acid, reinforced by the antiseptic properties of ozoniferous oils. It is unirritating, even when applied to the most delicate tissue. It does not coagulate serous albumen. It is particularly useful in the treatment of abnormal conditions of the mucosa, and admirably suited for a wash, gargle or douche in catarrhal conditions of the nose and throat.

There is no possibility of poisonous effect through the absorption of Listerine.

Listerine Dermatic Soap is a bland, unirritating and remarkably efficient soap.

The important function which the skin performs in the maintenance of the personal health may easily be impaired by the use of an impure soap, or by one containing insoluble matter which tends to close the pores of the skin, and thus defeats the object of the emunctories; indeed, skin diseases may be induced, and existing disease greatly aggravated by the use of an impure or irritating soap. When it is to be used in cleansing a cutaneous surface affected by disease, it is doubly important that a pure soap be selected, hence Listerine Dermatic Soap will prove an effective adjuvant in the general treatment prescribed for the relief of various cutaneous diseases.

"The Inhibitory Action of Listerine," a 128-page pamphlet descriptive of the antiseptic, and indicating its utility in medical, surgical and dental practice, may be had upon application to the manufacturers, Lambert Pharmacal Co., Saint Louis, Missouri, but the best advertisement of Listerine is . . . . . .

LISTERINE

the freest excursion once it lies between the uterus and membranes. If any vessel, as in the placental site, is broken, the blood at once runs through the tube. The softness of the latter precludes the possibility of rupture of the uterus, and the membranes also are protected from injury. The method is highly efficient in bringing on labour.

The Southern Medical Association Meeting.

The Southern Medical Association meeting was held in Nashville, Tenn., on Nov. 8, 9 and 10. The attendance was very large, and the interest was great; the programme full, and the papers read were very important. With all, this was one of the most interesting, and valuable meetings this Association has ever held.

Dr. John B. Murphy, of Chicago, delivered an address on the evening of the 8th, which was especially instructive and enjoyable.

The following are some of the important papers read:

SECTION ON MEDICINE.

Chairman's address.

"The Study of the Human and Bovine Bacilli, Isolated from Eleven Cases of Cervical Adenitis." Wm. Litterer, Nashville, Tenn.

"Bacilli Carriers; A Case Showing the Bacilli Typhosus in the Sputum." W. C. Dixon, Nashville, Tenn.

"The Gamete Carriers: Their Role in the Etiology of Malaria." Graham E. Henson. Crescent City, Fla.

"A unique Case of Flephantiasis, Caused by the Streptococcus, Associated with the Bacillus Prodigiosus." W. M. McCabe, Nashville, Tenn.

"Some Thoughts on the Relation of Foods to Temperature." George W. Brown, Atlanta, Ga.

"Further Studies on the Action of Purgatives: The Saline Cathartics." George E. Pettey, Memphis, Tenn.

(Discussion opened by John A. Witherspoon, Nashville, Tenn.)

"The Treatment of Gastric and Duodenal Ulcers, and Hyperchlorhydria." E. Bates Block, Atlanta, Ga.

"Gastric Neurosis." George M. Niles, Atlanta, Ga.

"The Digestive Symptoms of Pellagra." Seale Harris, Mobile, Ala.

"Infectious Endocarditis." J. U. W. Peters, Birmingham, Ala.

"Dermatitis Factitia, with Report of Cases." J. M. King, Nashville, Tenn.

"The Use of Venatrum Viride in the Treatment of Pneumonia." C. W. Strickler, Atlanta, Ga.

"The Quick Microscopic Typhoid Agglutination Test; Its Application and Avantages." C. C. Bass, New Orleans, La.

"The Plea of Insanity and Some Pointed Tests." J. C. King, Atlanta, Ga.

"The Diagnosis of Brain Tumors." E. M. Hummel, New Orleans, La.

"Auto-intoxication in Mental and Nervous Affections." Wesley Taylor, Atlanta, Ga?

"The Indications and contra-Indications for Operating on Nervous Women." S. T. Rucker. Memphis, Tenn.

"The Home Treatment of Tuberculosis, with Comments on the Use of Tuberculin." C. M. Nice, Birmingham, Ala.

"Acidosis." Thomas D. Parks, Birmingham, Ala.

"Complications and Sequellæ of Measles Based on the Study of 470 Cases." Thos. Weaver, Nashvi le, Tenn.

"The Treatment of Acute Catarrhal Colitis in Children." Charles E. Boynton, Atlanta, Ga.

ANTERIOR POLIOMYELITIS.

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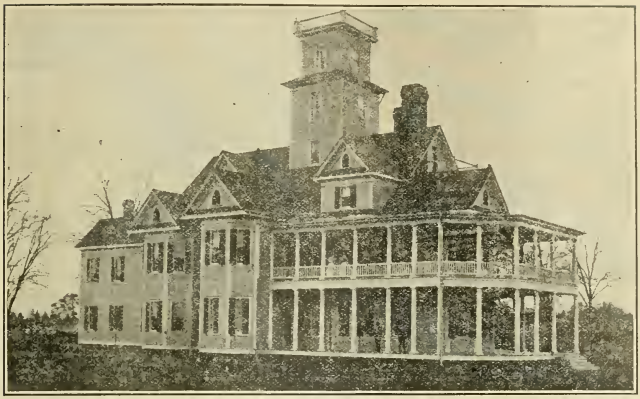

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Turpentine Enemata in Typhoid Fever.

Arnold (British Med. Jour.) has found enemata of turpentine very useful in the treatment of typhoid fever. On the first three days of treatment he gives turpentine one fluid ounce, in olive oil twenty fluid ounces; thereafter on alternate days turpentine half a fluid ounce, in olive oil fifteen fluid ounces, the latter enema being administered during the whole of the illnsss and until convalscence has been established. A preliminary thorough cleansing of the bowel by calomel and castor oil is generally advisable, the dose being repeated if necessary.

Caesarean Section in the Treatment of Eclampsia Gravidarum.

McCann (Proc. Royal Soc. of Med.) mentions the diversity of opinion as to the treatment of this disease owing to the ever-changing views regarding its pahtology The Doctor describes in detail a case occurring in his private practice, which he was asked to see in consultation, and regarded as hopeless. After chloroforming the patient, an attempt was made to dilate the cervix, which was found to be elongated, extremely rigid and undilatable, and the fits recurring with great severity, he emptied the uterus of a dead child by an emergency Caesarean section. The instruments used were a scalpel, a pair of scissors, two pairs of pressure forceps, a straight and a curved needle, a smooth bath-room towel cut into four pieces and boiled serving for abdominal sponges. She had one fit subsequent to the operation, and made a good recovery. He then briefly reviews the literature of this method of treating eclampsia gravidarum, and adds that if Caesarean section is to have place in this treatment, prompt action is necessary on definite indications. The indications given are: (1) When the fits are severe and recur in rapid succession. (2) When labour has not commenced. (3) When the cervix is difficult to dilate from elongation, hypertrophy or excessive rigidity. Too much time should not be spent in such cases in attempting to dilate the cervix. Unless the cervical tissues rapidly yield to the method of dilation adopted, such manipulations tend to increase the frequency of the fits, and unless the manipulations are carefully carried out, there is great risk of septic infection. Septic infection is a danger which must be borne prominently in mind, for it claims many victims in this disease. (4) When the mother is moribund, and the foetus living and viable. (5) When the labour has commenced and there is found considerable disproprotion between the size of the child and that of the pelvis. (6) When the surroundings of the patient are suitable for a major operation, and when the services of an operator skilled in pelvic surgery can be obtained. If a pa-

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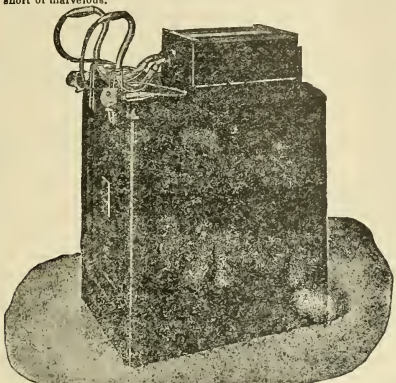

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tient can be removed to a well ordered hospital or nursing home, and can command the services of a competent operator, her chances for recovery will be increased, or if the apartment is clean and skilled assistance at hand, the simple technique may be carried out in her own home. Should the patient be in an insanitary dwelling and no skilled assistance available, her interests are best served by adopting expectant methods of treatment. The Doctor says the classical Caesarean operation is practically free from risk, and preferable to other methods of rapid delivery, including vaginal Caesarean section. In considering the effect of Caesarean section on the eclamptic fits, the author quotes the figures of Streckeisen, which show that out of 28 cases, in 14 the fits absolutely stopped, in 3 the fits diminished, in 2 the fits remained unchanged, in 6 no particulars, and in 2 Caesarean section was post-mortem. Absolute cessation of fits was therefore observed in half the cases. It has been further observed by Duhrssen and others that eclampsia ceases more frequently after artificial than after spontaneous evacuation of the uterus. He says that from what we know of the effect of labour and attempts at delivery on the frequency and intensity of the fits we would expect that that method of rapid delivery which involves the least amount of disturbance to the uterus to be the most beneficial. Caesarean section is undoubtedly the one which causes least disturbance, but if it is only tried after other methods have failed, much of its value is lost, for the prolonged attempts at delivery aggravate the disease, make the patient's general condition worse, and diminish her chances of recovery. Under expectant methods of treatment the mortality stands at 20 to 25 per cent. What is being done to reduce it? Duhrssen adopts the rule, "after the first fit, empty the uterus." Bumm has been enabled to reduce the mortality from 25 to 30 per cent. to 2 to 3 per cent., the former high mortality resulting when expectant treatment was adopted, and believes that the quicker the uterus is emptied after the onset of the fits the better the prognosis. An achievement such as this vouchsafed by so high an authority is emphatic evidence in favour of rapid delivery. Herman, on the other hand, is strongly opposed to rapid delivery. The statistics of the Glasgow Maternity Hospital, collected by Munro Kerr for a period of 15 years, show a mortality of 47 per cent., who adds, "The majority of the patients are sent in after they have been in convulsions for many hours. It is rare for us to get them within 12 hours of the first fit." McCann argues that such a state of affairs is due to the current teaching that expectant methods of treatment should be adopted, and while the general practitioner looks for guidance to those who make a special study of obstetrics, he finds considerable disagreement over the various methods of treatment. In conclusion the Doctor says that the termination of pregnancy exerts a more powerful and constant influence on the course of the disease than any other method of treatment yet employed.

Conjugate Deviation in Lesions of the Cerebellum.

Spiller (Review of Neurol. and Psych.) points out that in a lesion of the cerebrum it is believed that the deviation is away from the lesion in irritative and towards the lesion in paralytic conditions; that the opposite is supposed to be the case in poutine lesions; that so far the condition as regards the cerebellum is not quite clear. Hemorrhage or thrombosis of the cerebellum is rare, and when the former occurs, it is usually very extensive. Horsley and Clarke have shown that the cerebellar cortex is inexcitable, and that the motor stimuli proceed from the central nuclei. Direct excitation of the upper part of the nucleus dentatus causes conjugate deviation to the same side. Russell says that tumours causing destructive cerebellar lesions produce "as in cases of experimental ablation, defective power of movements of the eyes to the homolateral side." The Doctor points out that in the vast majority of cases vascular lesions in the cerebellum prove of pathological rather than of clinical interest, because death has resulted so rapidly; foci of softening are usually so small as not to cause symptoms and embolism is altogether improbable. From a consideration of a small number of selected cases which showed small hemorrhages either into the cortex or the central portion of the cerebellum. Spiller arrives at conclusions in regard to deviation entirely in harmony with the above observations. The author's cases showed that irritative cerebellar lesions produced conjugate deviation of the head and eyes towards the lesion, and that pararlysing lesions produced deviation away from the lesion.

Neurology—Investigation of the Cerebro-Spinal Fluid.

Kafke (Monatssch. f. Psych. u. Neurol) in his investigations he adopted two methods —the counting chamber and smear preparations. With the counting chamber the modification of the method of Fuchs and Rosenthal. The Doctor took 10 drops of the fluid and added to it an equal sized drop of a 2, 4,, or 5 per cent, acetic acid solution to which methyl-violet had been added. The fluid with this addition was then well shaken. The author used an ordinary chamber of .1 m.m. depth, and 3 m.m. square. By this method he found that numerous countings of any given 10 drops of fluid gave practically the same results, unless the specimen had been allowed to stand too long in contact with the methyl-violet, when a few of the undissolved red blood cells began to stain and to stimulate lymphocytes. The Doctor made his smear preparations in the following way:—Into a small, evenly-pointed glass tube 3 c.cs of fluid are introduced and 3 drops of filtered formol is at once added. The tube is centrifugal for 20 to 30 minutes, and the supernatant fluid is then poured off and the tube inverted. A capillary pipette is now introduced, the deposit is well mixed up with the small remaining quantity of fluid, and the whole sucked up into the pipette; this is now divided into two equal drops, each of which is spread over an area of a square c.m. on a cover-glass, dried in the air, fixed with mthyl-alcohol, and stained preferably with Delafield's hematoxylin, the preparation is slightly decolourised in 1 per cent. H.Cl. in 70 per cent. alcohol. This decolorising leaves only the nucleus stained; easin is now applied, and if the staining be too intense it can be partly removed by slightly alkaline alcohol. The Doctor counts with 1-1 in. lens a certain number of fields.

With these methods the author investigated a very large number of cases of nervous disease, and came to the following conclusions:—(1) The best are given by the smear preparations, porivded that the formalin is added immediately the fluid is withdrawn, and the above method is carefully followed. The counting-chamber method he also cnsiders reliable. (2) The writer considers two cells per field and five per c.m.m. in the smear and counting-chamber methods respectively, as the upper limits of the normal. (3) Sometimes, in cases of general paralysis one gets a negative result when examining for lymphocytosis, but since in this disease great variations in the cell content of the fluid occur (by no means running parallel to the clinical symptoms) a single negative finding is not to be relied upon. (4) Occasionally one finds an increase of cells in organic nervous diseases in the absence of any probable syphilitic disease; very occasionally an increase is found in dementia precox and epilepsy. (5) Exascerbation in general paralysis are seldom accompanied or followed by an increased leucocytosis. (6) Post mortem a lymphoctytosis is sometimes found when none was found ante-mortem. In this case the cells are usually degenerated. (7) In differential diagnosis in regard to general paralysis only a repeatedly-found negative result is of value, though high positive results speak for general paralysis. In determining whether an organic brain disease rests on a syphilitic basis a positive lymphocytosis gives us great assistance.

The Paratyphus Bacillus and Its Clinical Evolution.

E Job and V Raymond show that there are two distinct forms of symptoms as a result of the paratyphus bacillus, the acute gastrointestinal and the cholera type. The first form is characterized by vomiting, diarhea, and choleraic symptoms. It is the result of gastrointestinal intoxication. Contagion may play a part in its causation. In the second form it acts like the bacillus of Eberth. It is most important to make a bacteriological diagnosis in these cases. When we have intoxication from meats, if the symptoms begin very rapidly, it is because the germs had begun to act in the body of the animal before it was killed. The

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germ is very abundant in the meat and acts at once on the organism. When it arises from water the incubation and evolution are very like that of typhoid. The number of germs is small, and the toxins or endotoxins are not present until the germs have multiplied. The author gives a case illustrating each of these forms of disease from the paratyphus germ.—Le Progres Medical.

Local Origin of Prowazek Trachoma Bodies. Heymann refers to an announcement made by him at the Buda—Pesth Congress that he had found the so-called Prowazek bodies not only in cases of tracoma, but also in ophtalmia neonatorum. More extended

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investigation of the subject has led him to the following preliminary conclusions: 1. The bodies were demonstrable in cases of non-trachomatous conjunctivitis of infants and of a nurse, sometimes associated with gonococci. 2. They were also demonstrable in the genitalia of the parents of the children referred to, and in association with gonococci. 3. The secretion from cases mentioned under 1 and 2, whether derived from the conjunctiva of the children and nurse or from the genitalia of the parents, produced in baboons and long-tailed monkeys first a blenorrhea, and then a follicular catarrhal disturbance, which was repeated at each further inoculation from the eye of one ape to that of another. 4. In the conjunctival epithelium of such experimentally produced ape conjunctivitides, appeared large numbers of Prowazek bodies. 5. Genital secretions in which no trachoma bodies had been found, but which, according to the clinical history were etiologically connected with cases of conjunctivitis in which the bodies had been found, yielded by inoculation the same results as secretions in which the bodies had been found. 6. Female apes which had been injected **per vaginam** with positive eye secretion or negative vaginal secretion from the cases referred to under 1 and 2 showed in each case the Prowazek bodies. The author believes that these phenomena indicate that the Prowazek bodies are associated with the presence of another hitherto unknown virus, which is capable of reproduction and transmissible to apes. Questions to be settled in the future are: (1) Is the virus of trachoma identic with that of secretion from the eye or genitalia which is non-trachomatous but still contains the Prowazek bodies? (2) In case of the identity of both toxins, is this common virus, or in case of their duality, is either or only one of them capable of dissemination from, and pathogenic for, the urogenital apparatus? (3) Is trachoma virus which contains none of the bodies transimssible to apes?—Beri. Klin. Wosh.

The Operative Treatment of Apoplexy.

Franke (Deut. Wed. Wochensch) mentions an instructive case of cerebral hemorrhage in a young girl, which, though terminating fatally, brought up some interesting questions. At first the diagnosis was doubtful, but a recurrence pointed to a hemorrhage in the region of the right anterior central convolution. Repeated punctures in this area showed the presence of blood coagula with softened cerbral material. An osseous flap was therefore turned back and some coagulated blood and serous fluid evacuated by puncture. The dura was then incised and a fine rubber drainage tube inserted. Death occurred after twelve hours. From a study of this case the Doctor is in doubt wether the patient might not have been saved if operation had been resorted to shortly after the first attack and then the destructive pressure of the effusion upon the brain removed, and also whether it would not be good policy to intervene in most cases of cerebral hemorrhage as soon as possible, that is, within the first twelve hours. In the case referred to the condition was one of embolic cerebral hemorrhage in consequence of endocarditis, and death doubtlessly resulted from effusion of blood. Notwithstanding the marked pressure, however, as shown by the flattening of the convolutions and the extensive destruction of brain tissue, the patient survived for thirty hours and even improved temporarily after operation. This confirms the old observation that the brain can withstand marked intracranial pressure for a comparatively long period, and demonstrates that by early surgical intervention extensive damage to the cerebral tissues may be avoided. It is possible for a brain injured in this manner to return to the normal if the causative factor is removed after a few hours. The blood effused into the cerebral tissues, if allowed to remain, may later act as an irritant, and a large part of the evil effects of intracranial pressure is ascribable to the toxic action of the decomposition products of the blood upon the nerve fibers and cortical cells. Inasmuch as such hemorrhagic effusions are usually absorbed very slowly, it follows as a logical deduction that they should be evacuated as soon as possible. The author advises an initial trial of puncture and drainage in cases of cerebral hemorrhage, but if this fails trephining is indicated, either at once or after one or two hours. By following the suggestons of Neisser and Bollak, injury to the sinuses, veins and arteries may be avoided, although experience must determine whether this procedure is justified. In trephining the use of the chisel should be avoided as this increases the shock; and anesthesia is scarcely ever necessary. After opening the skull, punteure may again be resorted to at one or more places, or drainage tubes inserted, or the dura incised, according to the indications. Not every case of apoplexy demands operation, but only those in which there is little or any doubht as to the site of the hemorrhage.

Meningitis and its Anticipation.

In the lighter cases of fracture of the base of the skull, and some irritation from the laceration of the meninges, it is well always to bear in mind that these patients are apt to develop meningitis within 48 hours after the injury, and it ought to be anticipated. The way to do it is to clear the bowels out, and, in the second place, to put an ice-bag on the head to ensure quiet, and, further, to insist upon absolute starvation diet. Mistakes are often made in these cases by not looking carefully after the attnedants. Nurses, with the best intentions, sometimes force nourishment on such patients, but judicious starvation of a brain case is really one of the most important elements in the

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treatment. By starvation diet is meant milk and water, and nothing else, for the first 48 hours or so, and, then, perhaps, a little bread and butter, and subsequently very gradually and very slowly, an increase in the diet. The medical man must be guided by the temperature and the general symptoms before he lets the patient take anything really solid in the way of nutriment.—The London Practitioner.

Antitryptic Ferment in Syphilis.

Stumpke, (Wien med. Klin.) has examined the blood of 160 cases of syphilis—either case in which the signs of syphilis were unmistakable even though a positive serum reaction was not obtained, or cases with an undoubted positive reaction in order to ascertain if there is syhilis and in past-syphilitic affections and characteristic variation in the antitrypic index. In 64 cases with a positive serum reaction the antitryptic index was above normal in 16 per cent, was normal in 14 per cent, (1 to 4), and was below normal in 70 per cent. In three cases with negative reaction, but undoubted signs of syphilis, the antitryptic index was shown normal in one case, below normal in two. This gives a result very similar to that of Furnstenberg and Trebing, who found the index below normal in two-thirds of the cases; they did not, however, so frequently find an increase. The Doctor believes this increase in some cases at any rate, is due to the presence of other diseases as well as syphilis, more especially tuberculosis and pregnancy, because he has found that the ferment conditions of the serum are frequently altered in a combination of some other disease with syhilis. In one case, however, of phthilis and another of abortion, combined with syhhilis, the index was not raised. Furstenberg and Trebing founnd that in tabes the antitryptic contents were below normal, in general paralysis above. The Doctor's investigations confirm this result in the case of tabes, for which they give a series of six cases, with a lowered index in all. In three cases of progressive paralysis also the antitryptic index was diminished, and in four cases in which the only serum which was available was that obtained by lumbar puncture, the amtitryptic contents were much diminished. With regard to differences in different stages, it appeared that the index was reduced in a much lower proportion of the cases of the later stages than in the early ones, the figures were 95 per cent in late syphilis and metasphilis as compared with 67 per cent, in early syphilis. It was also found that in an individual case the antitryptic contents might vary within a short time. For example, in one patient the index was one to seven in one month, one to four in the next. In this case the explanation of the change is not known, but the possibility is suggested that it was a result of a great mprovement in the general conditions, which had been very poor in the earlier months. From the facts given it appears to follow that syphilis belongs to the diseases in which there is only a small ferment development—a condition of things contrary to that found in tubercle and carcinoma.

The Dyspepsia of Old Age.

W. S. Fenwick finds that out of 100 persons over 65 years of age suffering with chronic dyspepsia, 66 of the cases are secondary to organic disease of some important bodily organ, while 34 owe their symptoms to a progressive degenreation of the secretary structures of the stomach and bowel. In the former class the digestive disorders usually take the form of a chronic gastritis, due to disease of the kidneys, prostate, heart, lungs, liver, pancreas, chronic gout, or inefficient mastication; while about ten per cent. of the entire number are due to long continued hypersecretion from chronic ulcer in the vicinity of plyorus, gallstones, or diseased appendix. The pathological changes are traced, and are found to be more constant in women. Flatulence is the most constant symptom of the complaint. It is particularly severe at night. Constipation alternates with diarrhea. The main indications for treatment are to correct the subacidity and to relieve the flatulency and constipation. Large doses of diluted HCl may be given twice a day after meals, combined with a dram and a half of glycerin. Pepsin is useless. Metchnikoff's sour milk is undoubtedly one of the best means of relief. Malt preparations are of service when the intestine is particularly at fault. The usual bitter tonics had best be omitted, as they are apt to aggravate the condition. The new alcoholic essence of peppermint is of great service. One teaspoonful may be given in a sherry glass of water for an acute flatulent condition. For the constipation salines and and mineral waters are to be avoided and recourse had to a mixture of cascara and maltine, a confection of sulphur and guaias, an occasional dose of gray powder. —The London Medical Lancet.

Disinfection of the Skin By Iodine in Operations on Infants.

Marique (Journal Medicale de Bruxelles), reports extremely satisfactory results in so far as avoidance of skin infection is concerned in the use of methods of disinfection consisting in washing the skin with ether followed by a single painting with a five-per-cent tincture of iodine. The skin is gently rubbed with cotton tampons soaked in ether until it seems clean. Iodine is then applied and the part is allowed to dry.

Grossich, who first introduced the method, advises against all preliminary washing of the skin, holding that soap and water cause a swelling of the intercellular skin spaces and thus prevent a thorough impregnation with iodine. The Doctor notes that even in earliest infancy this preparation causes no irritation of the skin, and his records seem to prove its entire efficacy.

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Urgent Dyspnoea in Children.

Dr. Mann in a recent number of Guy's Hospital Gazette reports two interesting cases of urgent dyspnoea in children due to tuberculosis mediastinitis from which spinal caries developed. The first case was under his care at the Evelina Hospital, and was a boy of eight, who was admitted for attacks of breathlessness. On percussion a dull note was obtained in the first and second intercostal spaces near the sternum on the right and to a less degree on the left. The neck was swollen, with enlarged veins visible in front over the clavicles and lower part of the neck. The episternal notch was obliterated, and the thyroid gland somewhat enlarged. Nothing abnormal was to be discovered on laryngeal examination. It was noted that the stridor was markedly increased when the head was fixed towards the sternum, and the boy complained of pain in the chest when in this position. He had no pain in the back, and the cervical spine appeared normal. One or two glands below the angle of the mandible were somewhat enlarged on the right side; there was no sign of a retropharyngeal abscess. Owing to the rapid increase in the severity of the symptoms, a diagnosis of mediastinal growth was made, probably originating in the thymus. The dyspnoea was very severe, and on two occasion the boy actually stopped breathing, and it was decided to perform tracheotomy and push a catheter down through the bronchus. However he recovered from the attacks, and the paroxysm of dyspnoea became less urgent. A fortnight later he complained of pain in the back, and tenderness was found over the last cervical and upper two dorsal vertebrae; and finally well-marked kyphosis developed from the time spinal trouble became apparent his pain diminished, and the attacks of dyspnoea were less frequent, and eventually disappeared.

Puerperal Septicaemia.

Labusquiere in Les Annales de Gynecologie et d'Obstetrique summarises some recent work with reference to the Streptococcus and Haemolysis in Obstetries. The diagnosis and prognosis of puerperal infection could be established from a scientific standpoint, if only some distinctive characteristic were known whereby a virulent streptococcus could be recognized from the numerous inoffensive varieties which inhabit the female genital tract. The Doctor says that such a character exists, and that it consists in the haemolytic power of the pathogenic streptococcus. When grown on blood-agar this variety causes haemolysis, the degree of virulence of the organism being always proportional to the intensity of the blood destruction. Saprophytic types of this organism have not this haemolytic power. These results have, however, been called into question by recent work of Sigwart Ludke and Polano. According to these observers haemolytic power does not properly belong to any one variety of streptococcus, but, on the contrary, frequent changes occur from the haemolytic to the non-haemolytic types, and vice versa. Moreover, although a long-chained haemolytic variety is usually met with in infected parturient women, certain fatal cases are due to micro-organisms with entirely opposite characteristics. Again, for a streptococcus of a seemingly virulent type is met with in the lochia of healthy women at times. It is therefore impossible to draw any inferences from Schottlander's method, either as to the identification of varieties of streptococci or as to their virulence. The only element of bacteriological prognosis in puerperal infection which we possess at the moment would seem therrefore to be the presence in the blood of streptococci, be they haemolytic or not.

An Improvement on the Sour Milk Treatment.

Sharpe in The London Medical Lancet says that sour milk proves, in the majority of cases, distasteful to the patient, and the treatment is often given up in consequence before benefit has been obtained. The swallowing of tablets and sweetmeats containing the bacillus has not proved an efficient substitute for soured milk itself. As the different grades of soured milk appear to be beneficial in direct proportion to their sourness, the author concludes that the beneficial effects are no so much due to the baccillus as to the lactic acid of the milk. Dr. Sharpe prescribes a syrup of lactic acid which, when diluted, gives a solution containing 1 per cent. of acid, and he finds that this preparation gives all the good results obtainable from soured milk, with the additional advantage that it is palatable and readily taken; that is tends to increase rather than diminsh appetite; that it has remarkable thirst-quenching properties; that there is no risk of introducing undesirable bacteria; and that, although not purgative, it is distinctly inimical to constipation.

Cesarian Section in Placenta Praevia.

Kroenig maintains that as regards the mortality of mother and child in placenta praevia centralis, no one of the usual methods of treatment can compete with Cesarian section. Of his own 16 cases and 10 reported by Sellheim, all the mothers lived and also every child that weighed more than 2000 gm. at birth. He holds Sesarian section to be indicated only when, with an aseptic birth canal, section can be carried out at the beginning of the period of dilation. Kroenig's only case of somewhat severe hemorrhage was one in which at the time of operating the cervix was already moderately dilated He contradicts Veit's statement that cervical tears resulting from treatment by version and extraction can be easily sutured by the avergae practitioner.—Berliner Med. Woch.

Questions Presented by the Washington State Medical Board Examination.

PHYSIOLOGY.

1. What is metabolism? Name varieties.
2. Describe human blood and give its origin.
3. What effect upon digestion would be produced by an obstruction of the ductus communis choledochus?
4. Name the active principles of the various digestive secretions and state what kind of food is affected by each.
5. What is urea and how much should be excreted daily by a healthy adult? What are the principal dangers of faulty elimination?
6. Name the principal centers of organic function located in the medulla oblongata.
7. Describe the fœtal circulation.
8. Describe the formation of a blood-clot.
9. How is the normal temperature of the body regulated and maintained?
10. What is the function in the nutrition of the body of proteids, fats, carbohydrates and salts?
11. Describe the physiology of the act of vomiting.
12. What are the functions of the fifth nerve?

HYGIENE.

1. Mention five preventable diseases.
2. State the advantages of cremation over earth burial.
3. What methods would you use in combating an epidemic of smallpox?
4. Define humidity of the atmosphere. State why a humid atmosphere is contra-indicated for persons suffering with rheumatism and gout.
5. Give in detail the sanitary precautions necessary in typhoid fever.
6. Give the hygienic precautions a pregnant woman should observe.
7. What are the hygienic precautions you would advise persons to follow who are prone to "catch cold?"
8. Does a change of climate require a change of diet; if so, what?
9. What class of diseases are those living in a hot, moist climate most susceptible to, and what effect does this climate have on the human system?
10. Give the special hygiene factories where women and children are employed.
11. Of what value to the public health of a large city is the public bath?
12. What part does heredity play in tuberculosis, and is it possible to inherit the disease itself?

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BACTERIOLOGY.

1. Define bacteria; name the three basic forms and describe each.
2. What are pathogenic bacteria? Tell how they propagate and name the common avenues of invasion.
3. What are tovins and anti-toxins? Define the terms sepsis, antisepsis, germicide, disinfectants, antiseptics and sterilization.
4. What is diphtheritic antitoxin? What does the term unit applied to it mean?
5. Define immunity, natural and acquired; name factors producing the latter.
6. What is pus? Give its causes; name the varieties.
7. Mention six systemic diseases caused by micro-organisms and name the organisms.
8. What do you understand by hereditary and acquired predisposition?
9. How long, in your opinion, would organisms causing specific urethritis, enteric fever, syphilis, malignant pustule and phthisis pulmonalis, remain active in nature, outside the host, under both favorable and unfavorable conditions?
10. What is infection and how is the body protected when an open wound oc-

curs?

11. Define perod of incubation; give that of scarlet fever, diphtheria, smallpox and tetanus.
12. What bacteria does freshly voided urine of a healthy person contain? A large number of yeast fungi found in a sample of urine give evidence of what?

CHEMISTRY AND TOXICOLOGY.

1. Compare the symptoms, signs, minimum fatal dose and time before death of poisoning by carbolic and oxalic acid.
2. Give the minimum fatal dose of phosphorus, time before death, symptoms and signs of poisoning and common forms of administration.
3. What is ptomaine poisoning, give the symptoms of such and the usual vehicles for ptomaines.
4. Compare the appearance, both antemortem and postmortem, of poisoning by sulphuric and nitric acids.
5. To what does illuminating gas owe its poisonous qualities? What are the symptoms of such poisoning and what is the characteristic postmortem appearance?
6. What are the symptoms of poisoning by methyl alchohol and under what names do we find this preparation used?
7. Give the chemical composition of normal urine. describe urea and give a test for it.
8. Give chemical composition of human milk and compare it with cow's milk.
9. Give two tests for albumen in urine and explain the relation occurring.
10. Give two tests for sugar in the urine and explain the reactions.
11. Give the chemical composition of bile and give a test for it in urine.
12. Trace the chemical changes which occur in the oxygen inspired into the lungs.

GYNECOLOGY.

1. Is irregular bleeding a symptom in uterine fibroids situated subperitoneally? How are such fibroids usually evinced?
2. Give the varieties of dysmenorrhoea and which is the most common.
3. Give the usual causes of ovarian prolapse.
4. Give the length of the uterine canal; also distance of os internum from os externum.
5. On which side does a postoperative femoral thrombophlebitis most often develop? Is it more common after operation for suppurative conditions?
6. Give your method of the after treatment of a plastic operation.
7. Give some of the remote results of chronic pelvic peritonitis.
8. When a woman after puberty and before the menopause, who has menstruated regularly and painlessly, goes several days over the time when menstruation is due, sees blood from the vagina differing in quality, color or continuance from the usual mensualflow and has pains, generally severe in one side of the pelvis or the other, what may be presumed to be the cause of the departure from the normal?
9. Define endometritis. Is it often recognized in its acute stage?
10. Do gonococci survive long in a closed pus cavity, as in an obstructed Bartholinitis or in a pus tube.
11. Give some of the pericystic conditions responsible for frequent urination and pain.
12. Give the symptoms produced by varices of the broad ligament.

GENERAL DIAGNOSIS.

1. Give the symptoms and diagnostic points of chlorosis.
2. Differentiate aortic stenosis from mitral insufficiency.
3. Give the diagnosis, complications, and sequelae of scarlet fever.
4. What are the symptoms and physical signs of emphysema? Of pleurisy with effusion?
5. What symptoms and conditions would lead you to make a diagnosis of erysipelas? What are its complications?
6. What are the symptoms, complications, sequelae, and diagnosis of diphtheria? Differentiate from follicular tonsilitis.
7. How would you make a diagnosis of typhoid perforation and hemorrhage?
8. Give the differential diagnosis between acute bronchitis and lobar pneumonia.
9. Differentiate epilepsy, apoplexy, sunstroke, morphine poisoning, and acute alcoholism.
10. What are the diagnostic symptoms of cholelithiasis? How would you differentiate it from catarrhal jaundice and from appendicitis?
11. What are the symptoms, physical signs, and diagnostic points of gastric carcinoma?
12. Give the symptoms and diagnostic points of cerebro-spinal fever.

PATHOLOGY.

1. Defcribe fully the difference between fatty degeneration and fatty infiltra-

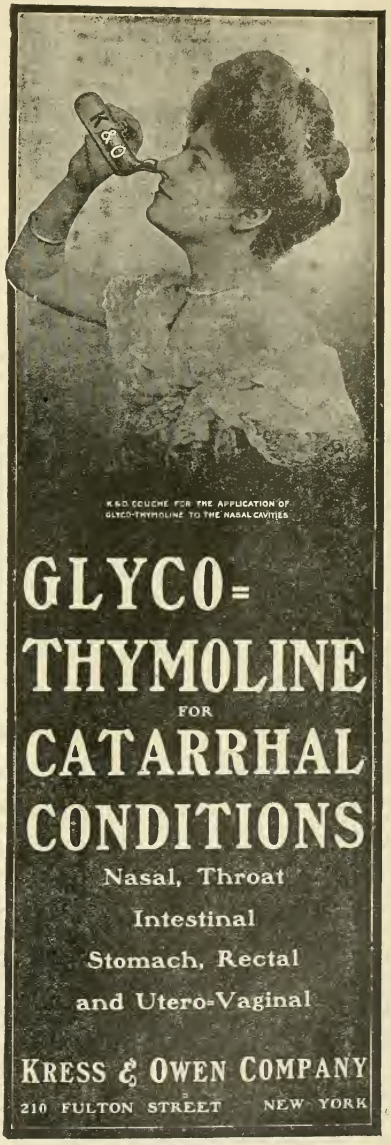
tion.

2. What is the blood picture in pernicious anemia?
3. What pathological changes take place in tee kidney in chronic interstitial nephritis?
4. Name the stages in lobar pheumonia and give tho pathology of each stage.
5. Give the pathology of apoplexy.
6. Describe the pathological changes in the liver in alcoholic cirrhosis.
7. Describe the formation of a gumma.
8. Name and describe the pathological changes that will take place in the leg and foot from the destruction of femoral artery.
9. What is the macroscopic and microscopic appearance of the lung in acute miliary tuberculosis?
10. What conditions would lead you to suspect that a tumor in the mammary grand was carcinoma? Give its pathology.
11. What morbid anatomical changes take place in diabetes mellitus? In Addison's disease?
12. Give the pathology of acute myelitis.

HISTOLOGY.

1. What is the process of indirect cell division? Describe fully.
2. Describe the general character of epithelium.
3. Describe yellow elastic tissue and tell where found.
4. Describe white fibro cortilage and tell where found.
5. Describe cells found in red marrow.
6. Name varieties of muscles and give difference between them.

The Carnegie Foundation Report on the status of American medical schools has led to an endless amount of discussion *pro* and *con*, and in certain circles at least has stirred up an antagonism that is anything but passive. On the whole the report presents few facts that were not generally known, and many of its criticisms and animadversions on the teaching facilities and methods of our average American medical college have been foreshadowed by numerous articles that have appeared from time to time in the medical press during the past decade. For a number of years the Association of American Medical Colleges has been earnestly striving to elevate the standards of medical education, and a record of its meetings would show very conclusively that those charged with the direction and management of the medical colleges of the country have been thoroughly alive to their shortcomings. It would be most unfair to state, or even convey the



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impression that honest, faithful efforts have not been put forth to better existing conditions, or to deny that very real and substantial progress has been made in the equipment, methods—and aspirations—of practically every recognized medical school. The state boards of registration have worked consistently to these same ends, and and have been particularly successful in raising entrance requirements, a fact well shown by the improved type of medical students.

It is quite apparent, therefore, that the general movement in medical education, including essentially all teaching facilities and methods, has been forward, while the substantial improvements that have been made in not one but many directions are such that graduates of even ten years standing cannot fail to appreciate them.

If we were to assume to criticize the Carnegie Report from any standpoint whatsoever, it would be on the grounds that the very evident progress of the past ten to fifteen years is entirely disregarded. and comparatively little or no credit is accorded the medical schools for the efforts they are obviously making to increase their efficiency. Unfortunately nothing handicaps a report or a work of reform as surely as a suspicion of unfairness and we fear the laudable motives and the really excellent, painstaking work embodied in Professor Flexner's report will fail to accomplish the good it should—for a while at least. This situation, the result primarily of the controversies it will surely stimulate, together with the suspicion of an animus against the smaller institutions, bound to result from the apparent failure to give proper credit for the advancement practically every college has made, will pass away, it is to be hoped, when the Report is mode carefully studied and understood.

Aside, however from the foregoing, it will be seen that the Report is epoch making, that it is fearless and specific in its recommendations, and should give very material aid in placing medical education on a higher plane.

A real service has been done for the deserving medical colleges of the United States, a service that will take on new significance as the forces at work for the advancement of medicine or better organized.—American Medicine.

Abortive Treatment of Syphilis.

Hollapeau has had encouraging results in the abortive treatment of syphilis. His procedure consists in an energetic local treatment (inunction and local injection of arylarsonates), followed by prolonged, systematic treatment with mercury and iodides. In five out of six cases of chancre he was able to prevent the subsequent development of the disease, and in the sixth case the secondary symptoms were slight and transient.

The theoretical considerations on which the treatment is based are as follows: At first the spirochætes are not in the bloodstream, but are chiefly in the immediate neighborhood of the initial lesion, *i. e.* in the tissue surrounding the chancre, and in the lymphatics and glands supplying the part. By an energetic local treatment the attempt is made to cope with the disease while it is still local, and the general treatment aims at the destruction of any spirochætes which may have escaped into the blood streams.

The local measures used consist in the injection of hectine, together with the application to the chancre of a strong (30 per cent.) ointment of atoxyl, or, if the ulceration is extensive, of 10 per cent. ointment of calomel. The arsenical preparation, hectine, is supposed to be less toxic than atoxyl or arsacetin. Chemically, it is the sodium salt of benzo sulphono-para-amenophenylarsinic acid, and contains 21 per cent. of arsenic. The daily dose is 20 cms., or, in the case of weakly persons, 10 cms., with which is combined 1 per cent. of novocaine to remove the pain. This quantity is injected daily under the chancre and the neighboring tissue, and along the lymphatic tract to the glands. To cope with any spirochætes which escape the local treatment, benzoate of mercury is injected daily into the gluteal muscles for 15 to 20 days, and, thereafter, mercury, is administered by the mouth or by inunction. To reduce still further the chances of any spirochætes surviving, 15 to 30 grs. of potassium iodide are given daily. The active treatment is kept up till the end of the incubation period of the secondaries, but till the end of the tenth month Hallopeau advises intermittent treatment, viz., every fifth or sixth day a local injection of 10 to 20 cms. hectine, and every month an intramuscular injection of benzoate of mercury or inunction of mercury. The disappearance of Wassermann's reaction is a useful check on the length of the treatment. The efficacy of this mixed treatment is shown by the fact that in the five patients 432, 261, 239, 164 and 119 days had elapsed since the chancre without other symptoms appearing.—*Edinburg Medical Journal.*

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A well-known physician, who used it in insomnia following worry said of it; "An average dose afforded me a calm and restful sleep from which I awoke without the headache, nausea and tremulousness that succeed the ordinary hypnotic."

Calmine should prove very useful in the treatment of insomnia, nervous irritability, delirium tremens, sea-sickness, hysteria, mania and every type of nerve-storm. If certainly acts ideally in the wakefulness that follows worry-mental overstrain, excitement and too free indulgence in coffee ann tobacco.

The Abbott Alkaloidal Co., of Chicago, are sending samples on request and circular matter describing the agent in full. Every doctor should certainly send for this trial package.

Oxygen in Whooping-Cough.

Weill and Morriquand (*Lyon Med.*) find that the administration of oxygen at the commencement of the paroxysms in whooping-cough is of service in warding off bronchopneumonia and suffocation. The oxygen is given at each paroxysm, and, if possible, just as it begins. The cyanosis subsides and the patient is relieved. The gas renders the lung aseptic and thus able to resist infection. It must be used freely, at least ten or twelve liters for every paroxysm, and if there is danger of bronchopneumonia it should be inhaled every hour.—*British Journal of Children's Diseases.*

Meningeal Reactions in Scarlet Fever.

G. Paisseau and L. Milhit, on the basis of numerous lumbar punctures, come to the conclusion that irritative conditions of the meninges are almost always found in infections occurring in young people. The pressure of the cerebrospinal fluid was slightly increased, and a lymphocytosis was frequently present. In no instance were microorganisms found in the fluid.—*Bulletin de la Societe de Pedriatie de Paris.*

Removal of the Frontal Bone for Septic Osteomyelitis.

C. J, Symonds reports a case in which the infection followed chronic suppuration of both frontal sinuses, and existed before operation. In a series of operations the frontal bone was removed, together with a part of the sphenoid, the roof of the right orbit and its inner wall, and the orbital ridge. On the left side part of the orbital ridge was left. The case was shown as an example of a rare complication, and as a recovery from a grave condition of infection. The other point of interest was the reconstruction of the greater part of the frontal bone and the consequent restoration of the forehead. On the left side of the frontal sinus had been operated upon by the method of Watson Williams with no perceptible scar.—Royal Society of Medicine.

A Therapeutic Mainstay.

The distinct and definite therapeutic value of iron in anemic and chlorotic conditions and general tonic in systemic devitalization from whatever cause, is one of the certainties of medicine that modern scepticism and therapeutic nihilism cannot deny or controvert. The only difference of opinion is as to the best method of administering this metal and as to the most generally eligible preparation of same, Modern pharmaceutical skill has replaced the tincture of the olden times, prepared from iron filings, with the non-irritant and thoroughly tolerable combinations with organic substances. None of these products have proved as generally acceptable, promptly assimilable or therapeutically efficient as Pepto-Mangum (Gude), the first and best preparation of lhe peptonates of iron and manganese in organo-plastic form. Its remedial value is unquestioned and unquestionable. It is suitable for administration to patients of all ages. It is thoroughly palatable and acceptable. It does not irritate the gastric mucous membrane or disturb the digestion. It does not induce constipation. Pepto-Mangan (Gude) rapidly restores oxygenating power to the circulating fluid and fulfils every possible therapeutic indication that can reasonably be expected of it.

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The unbiased reports of thousands of physicians, basing their opinion upon their experience with antiphlogistine in both hospital and private practice, conclusively proves its dependable value in all inflammatory and congestive conditions.

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The climatic Fall changes will bring with it its train of cases such as laryngitis, pharnygitis, quinsy, tonsillitis, etc., and antiphlogistine (the original clay dressing) applied hot and thick, will offer prompt and satisfactory relief."

Post-Graduate Work.

Many a man, in his humble town or village, is forced to note-taking and the medical societies for acquiring that self-training which a well-equipped post-graduate school so well assists one in obtaining. The income of the average man is so limited that an attendance at a school in a great city, with its immense clinical advantages, remains an irridescent dream. This is one of the sad features of our economic conditions, and is a telling commentary upon a civilization which boasts of its material progress and neglects things essential to render that material advance worth while. It is a commonplace to say that the public should make possible a physician's frequent attendance on schools, so that they can serve that public with greater efficiency. It is scarcely necessary to enlarge upon this phase of the subject.

That the physician needs the advantages of post-graduate study, he himself most keenly feels. And the feeling does not only prevail in this country of limited possibilities to an overcrowded profession, but also in England. At the recent inaugural address of the president of a branch of the British Medical Association at Bristol, the fact was emphasized that if the English medical man could take an annual course of study at one of the great medical schools, "what a boon it would confer on our professional life!"

We must quote a few paragraphs from this address to show how our British brethren regard the necessity for graduate work. The entire address is printed in the *Bristol Medio-Chirurgical Journal.*

Medical Research Work.—Probably every one who has done research work has noted with interest that there are two distinct types of mental activity focused on every problem: first, the immediate, narrow, and intense concentration on the nucleus of the problem in hand; and, secondly, the more diffuse mental embrace of all facts and theories that touch the problem in even the most remote fashion. As a result of this duality, the recompense from investigative work is in essence also two-fold. The concentration of activity furnishes a new positive or negative fact, and with it the joy of discovery; the more diffuse consideration of allied subjects furnishes a widened breadth of view, and with it, the exhilaration attending mental expansion.

The recent literature on surgical shock illustrates most clearly this point of view. Practically every investigator of shock has concentrated his energy on one very limited phase of the problem; for example, Crile on vaso-motor function, Boise on heart action, Meltzer on inhibition, Keen and and Mitchell on reflex paralysis, Henderson on the carbon dioxide content of the blood, Schur and Weisel on the chromaffin system, and Buerger on the sympathetic abdominal ganglia. Each one of these investigators has set himself, as his specific task, the determination of the relationship between shock and the particular function considered by him as a causal factor. The solution of this very definite problem calls for the type of mental exercise that we have characterized as *intensive*; and as eventuating in the pleasurable satisfaction of discovery.

It is self evident, however, that the very enunciation of the new fact carries with it the necessity both of surveying previous theories and of practising critique on the views of preceding investigators. This is the *extensive* part of the work, the effort furnishing the stimulus of mental expansion. A very brief consideration will serve to illustrate how many and how varied are the interests aroused during this phase of the investigation. Historically considered, the problem leads back to the earliest times, when the ancients, unable to explain the relationship existing between trauma, death, and no visible pathological lesions, called to their aid the *deus ignotus;* then, advancing forward, the path leads to a consideration of the era of the introduction of railroad building and traffic, with the consequently large number of shock-producing accidents. Following closely on this era, comes that of the Crimean and American civil wars, in the medical reports of which struggles much space is devoted to shock. This purely clinical era was followed by a decade of experimentation, crude indeed, but illuminated by the names of some of the greatest masters of medicine —Barnard, Leyden, Mitchell, Keen, and others—who prepared the way for the last period of more accurate and careful laboratory work.

The historical resume serves the purpose of emphasizing the necessity of investigating the various theories passed in review, and thus there results a careful analysis of fundamental physiological problems, such as fatigue, cardiac activity and control, vasomotor and cerebral function, reflex activities, inhibition, augmentation, and countless other physiologic processes. It is impossible to review these physiological functions without running counter to fundamental problems of pathology; and so we are forced to make another excursion. But even before the journey has gone this far, it has probably become evident that certain important general biological princi-

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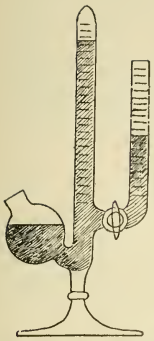
ples have introduced themselves for examination and critique. We are, for example, forced to note stages of evolutionary development of the higher and the lower nerve centers, and the consequent differences between the so-called fundamental and accessory body functions. With this side line disposed of, there still remains for the particularly curious and interested individual a consideration of such philosophic dogmas as vitalism, teleology, and pure materialism.

Finally the problem is finished. The verbal or finished report may furnish, perhaps, only the bare statement of a new positive fact, the announcement of a qualifying negative phenomenon or the confirmation of earlier theories. But the ultimate value of the work is not thus limited, but is specifically twofold; for in the first place, the sum total of knowledge has been increased by the discovery, and in the second, the correlation of allied branches of science has been reviewed and confirmed. —Interstate Med. Jour.

Serum Treatment of scarlet Fever.—Berlin has recently suffered from a long and widespread epidemic of scarlet fever, many of the cases in which were of a malignant character. Jochmann and George Michaelis have sought to gain from this epidemic more precise ideas as to the role played by sterptococci in the disease, especially as bearing on the therapeutics of severe cases. Jochmann remarks that while in the great majority of cases streptococci are found in the blood, yet it is particularly in those fulminating cases which die after only a day or two's illness that no streptococci are found. Jochmann's view as to the explanation for this fact is that the streptococcus certainly plays an important part in the pathology of the disease, so important indeed that in comparison with it the actual scarlet fever process often drops into the background, but that we have no secure basis for assuming an etiological significance for the streptococcus. Jochmann and Michaelis prepared a vaccine from cultures of streptococci from a number cases. This mixed vaccine was administered in gradually increased doses to 130 cases. Although the opsonic index to streptococci was raised in most cases, the therapeutic results were unappreciable. Another series of cases were treated with a carefully selected antistreptococcic serum. For this were chosen such cases as gave an unfavorable or even fatal prognosis. As a rule 50cc. were administered subcutaneously, the dose being repeated after two days or oftener, if no effect was observed. Twelve cases, of the most urgent character, were treated intravenously. The great majority of the writer's cases, however, were treated with both serum and vaccine. The result was apparently in favor of the combined treatment. The figures as to the numbers of cases recovering or dying after use of either serum alone or serum combined with vaccine offer little or no indication as to the actual benefits obtained. But Jochmann, after considering in detail the status of the cases at the time treatment was begun, feels that the combined treatment offers some improvement in the prognosis in severe cases. He sanely concludes: "If once only in a severely toxic case I had seen recovery follow the employment of specific therapy, I would persist in trying such treatment." Berl. Klin, Woch.

Ulceration of the Frenum Linguae in Whooping Cough.—Apert mentions a symptom of whooping cough that he considers almost pathognomonic, and which occurs in about 50 per cent. of the cases observed by him. This is a superficial ulceration of the frenum linguae, generally linear, and which on scraping gives a grayish mass consisting of epithelial cells, and multitudes of leptothrix germs. It is situated in the median line and on the free border of the frenum. Of 252 cases seen by the author, this ulceration occurred in 111; in 105 it occupied the classical point on the frenum. Exceptionally there is the formation of a false membrane. This ulceration appears in the second or third week of the disease, sometimes as late as the seventh or eigth week. Two theories have been given as to its causation; first, that it is due to friction of irregular incisor teeth; second, that it is a specific ulcertion. The truth seems to be between the two opinions—Le Bulletin Medical.



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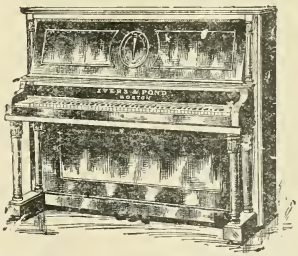

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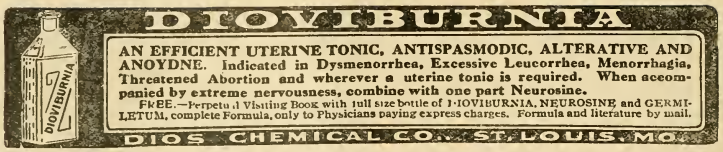
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Treatment of Cystitis.

For cases of acute bacterial cystitis, Ad. Schlafli, assistant surgeon of the Women's Hospital, Bale, reports that the medical staff have found the most efficient treatment to be energetic internal salicylic medication, coupled with diuretic stimulants, as tea and "Wildungen" or other mineral waters. Complete repose in bed and regulation of defecation are of course essential.

The preparations of hexamethylenamine their experience has shown to be much less efficient, and salol must be regarded as not free from danger, owning to the possibility of carbolic poisoning from the intestine; hence they have resorted to the pure salicylic preparations. Acetylsalicylic acid is the most active of them; diplosal is very nearly as active and has the advantage of not giving rise to such strong perspiration and not irritating the stomach. On the other hand, it is not absorbed so quickly. Acetylsalicylic acid is therefore to be preferred when it is a question of very rapidly producing an effect; i. e., for headache. Unfortunately, it is not well tolerated by everybody; it occasionally calls forth stomach-ache, even violent pains; though administered in lemonade, and it causes profuse sweating. Consequently, when very rapid action is not essential, diplosal was found preferable to acetylsalicylic acid in the treatment of cystitis.—Zeitscheift fur gynakolog.

Dupuytren's Contraction.

As people advance in years, one of the sclerotic changes which appears is Dupnytren's contraction. According to A. H. Tubby it is a fibroid thickening of the palmar fascia, which gradually undergoes cicatrization, and draws the fingers into the palm. He quotes the case of a man who had both hands affected. He was a painter and was unable to do his work satisfactorily. The author says: "I have made many attemps to cure Dupuytren's contraction, and at last I think I have found a method which is generally successful. The method formerly in use was multiple subcutaneous puncture and division of the hands. Experience showed that the condition often came back in a year or two, and the patients were then as badly off as before. So in all cases,except those who are broken down in health, I make an incision in the palm of the hand and dissect out all the affected fascia. You can easily tell which is affected and which is not, for the contracted part is always dead white in color, whereas the non-affected is of a pearly lustre. Having dissected out the diseased tissue, fibrolysin is rubbed in very freely, and a few drops are injected with a syringe around the margins of the wound. Then the wound is sutured, and healing follows in about eight days This man was incapable of extending his fingers. The palm is now fairly supple, and his movements are free. So far I have not seen a relapse in any of the cases so treated, and I have been carrying out this method for a couple of years. In patients who are younger than this man, and not exposed to lead, the results are very satisfactory. A little thickening returned in this case after the operation, and so, four days ago, I injected 5 m. of fibrolysin into the palm of the hand just to the side of the scar, and the thickening is already beginning to disappear. So that a combination of the open operation and the judicious use of fibrolysin will enable us to render these hands useful, and effect a permanent cure.—Medical Press and Circular. London.

Ehrlick's New Remedy for Syphilis.

Ehrlich's new syphilis remedy was introduced to the Berlin Medical Society at the meeting of June 22nd by four referees,--Professors Wechselmann, L. Michaelis, Alt, and Schreiber. Wechselmann (Berlin) is ahead of a skin and venereal disease department in the Rudolph Virchow Hospital; L. Michaelis (Berlin), well known for his researches on cancer and on agglutination of blood, has syphilis cases in sufficient number at disposal; Alt (Uppspring) is an alienist of note, and Schreiber (Madgeburg) is an eminent dermatologist in general practice. All of these men are at home in the purely scientific, as well as the practical, side of their specialities, and each one of the four had the same report to give—a unanmity as rare as welcome—namely, improvement in all cases treated with the new remedy, and no disagreeable

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by effects. The question of relapse cannot of course, be answered with anything like confidence for years to come; as yet, no relapse has been observed. Wechselmann exhibited a number of syphilitic patients treated, together with wax models of their previus condition. In general, a single injection had sufficed to produce disappearance of the symptoms, showing (he said) that Ehrlich was at least on the road towards achieving his great aim, which was to find a method of radical cure by complete destruction of the pathogenic cause—a *Therapia sterilisans magna*. The new remedy is an arsenic preparation simior in its nature to atoxyl, but said to be free from the noxious by-effects of that drug. Its chemical name is dioxydiamidoarsenobenzol, but Ehrlich has christened it "Haka,' after his fellow-worker, a Japanese, and it is also known as No 606. The feeling of lively interest which prevailed among the listeners at the begining of the meeting deepened into wrapt attention as the reports proceeded. Here were legitimate grounds for the hope that the new remedy would mark a great step forward in the history of therapeutics; and when, towards the close, Ehrlich himself stood up to express his thanks to the men who had devoted so much skill, energy, and patience to putting his researches into practice, a storm of such genuine and long-continued applause broke forth as has hardly ever been heard in this matter-of fact and septical Society.—British Medical Journal.

Examination Questions of the Pennsylvania Medical Examining Board.

ANATOMY.

1. Give the origin and insertion of the rectus abdominalis muscle, and describe in detail its relationship to other structures.

2. Give the relations of the peritoneum with the bladder in the distended and collapsed condition.

3. Give the border of the pleura on each side in the anterior axillary line.

4. Describe the seventh or facial nerve, and give its distributions.

5. Give relation of bony prominences of the elbow joint in the flexed position.

6. Through what structures of the eye does light pass to reach essential visual structure?

7. Describe the stomach, and give its relationship with other organs.

8. What are the relations of the right kidney, and why is it lower than the left?

9. Describe the formation of the deep and superficial palmar arch with the anatomical landmarks of each.

10. Give the location and structure of the inguinal canal and name its normal contents.

PHYSIOLOGY.

1. Explain in detail the mechanism of intestinal peristalsis.

2. Name three physiological conditions which help to protect the body against disease or injury; citing instances of protective immunity.

3. Enumerate four conditions to be observed in "taking" the pulse, and describe the significance of each.

4. Describe the functions of the liver.

5. Discuss calorifaction with special reference to the maintenance of normal temperature.

PATHOLOGY

1. Discuss carcinoma uteri with special reference to the age at which it commonly occurs.

2. Name the casts that may be found in the urine and state what it the usual significance of the presence of each form.

3. Describe the pathologic tissue changes in the varieties of pulmonary emphysema.

4. Discuss "fatty" degeneration of the heart.

5. Discuss uremia and state conditions to which it is due.

PRACTICE AND THERAPEUTICS.

1. What are the symptoms which are most characteristic of typhoid fever in its early stages?

2. How would you treat a case of angina pectoris during and between attacks?

3. What are the characteristics of acute articular rheumatism, and how would you treat it?

4. What are the causes of asthma, and how would you treat an attack of bronchial asthma?

5. Give the method of using the cold bath treatment in typhoid fever.

6. How would you treat a case of uremic coma occurring in chronic Bright's disease?

7. Describe the way in which you would vaccinate a patient.

8. How would you manage a case of epi-

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MEDICAL

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GEORGE J. WILLIAMS, M. D.

lepsy during and between attacks?

9. Describe the prophylactic and curative management of malaria.

10. Name the most characteristic lesions present in the different stages (primary, secondary, and tertiary) of syphilis.

SURGERY,

1. Describe how you would locate on the skull the point to trephine in hemorrhage from the middle meningeal artery.

2. Describe the symptoms produced by loose bodies in the knee joint, with the treatment of same.

3. What conditions are capable of causing stricture of the rectum; describe a surgical operation for the relief of any one form.

4. Give symptoms upon which to base a diagnosis of ulcer of the stomach, and describe a surgical operation for the relief of same.

5. Describe the methods of examination

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to determine whether a tumor of the breast be malignant or benign.

6. Diagnosticate stone in the urinary bladder and describe suprapubic cystotomy.

7. Describe a backward dislocation of the shoulder joint, and give treatment for same.

8. Describe four of the more usual varieties of fracture at or about the elbow joint with the appropriate dressings for each form.

9. What are the contraindications and dangers of ether and chloroform anesthesia?

10. Name the common cause of ununited fracture and discuss the measures resorted to for its cure.

MATERIA MEDICA.

1. Compare the effects of the two principal alkaloids of opium, and name the drugs that are antagonistic to opium.

2. State to what class of remedies stemonium belongs, and describe two other official drugs belonging to this class or group.

3. What is tartar emetic, and into what official preparations does it enter?

4. Name the salts of manganese, giving their dose and describing their action.

5. Write a prescription for the production of mydriasis, with directions to the patient, and explain its use in refraction.

CHEMISTRY.

1. How are blood and pus chemically detected in the urine?

2. Describe method of use when testing for glucose with Trommer's, Fehling's, or Haines' solution.

3. What is indoxyl-potassium sulphate? Describe a chemical test for its detection?

4. Describe chemical tests for three forms of urinary calculi.

5. Describe a test for the diastasic activity of digestants ("extracts of malt").

DIAGNOSIS.

1. Name five causes of coma and give the characteristic symptoms produced by each.

2. Diagnosticate pernicious anemia and differentiate conditions simulating it.

3. Differentiate impectigo, lichen, and pemphigus.

4. What are the most important defects of vision, and how would you differentiate them by the use of test cards, lenses, and mydriatics?

5. Differentiate stone, tubercle, and carcinoma of the kidney, giving chemical and microscopical tests of the urine in each.

HYGIENE.

1. Give hygienic and dietic measures for preventing constipation.

2. What are the dangers from the use of drugs for the preservation of foods.

3. Outline the dietetic and hygienic instructions suitable for a person who has contracted syphilis.

4. What are the possible results of the use of tobacco by growing children in regard to circulation, vision, and air passages?

5. State briefly some practical method for securing good ventilation in houses not properly ventilated at the time of building.

OBSTETRICS.

1. Describe the delivery of the after-coming head.

2. Diagnosticate a shoulder presentation and describe the method of delivery.

3. How would you diagnosticate ectopic pregnancy?

4. During labor what conditions should govern the employment of an anesthetic?

5. What means should be employed to prevent laceration of the perineum?

6. How would you diagnose and treat albuminuria of pregnancy?

7. Discuss the use of "the forceps."

8? Name cause and describe the management and treatment of uterine inertia,

9. Enumerate causes of dystocia and describe the management of any one form.

We call the attention of our readers to the advertisement of the Robinson-Pettet Co., Louisville, Ky., which will be found on another page of this issue. This house was established fifty years ago, and enjoys a widespread reputation as manufacturers of high character. We do not hesitate to endorse their preparations as being all they claim for them.

The Charlotte Medical Journal

VOL. LXII CHARLOTTE, N. C., DECEMBER, 1910. No. 6

Surgical Treatment of Dropsy due to Kidney Disease.*

By G. Paul LaRoque, M. D., Richmond, Va.

Five years ago at the meeting of the Medical Society of Virginia in this city I stated in a discussion on the "surgical treatment of nephritis," that the pathologic process was not curable by any known surgical means and that the operation of renal decapsulation as proposed and extensively employed by Edebohls, had not been successful from the standpoint of the curative treatment for Bright's disease. In this paper I stated the real indications for the operation as follows:—"Rapidly progressive or obstinate oedema, threatening or actual anuria, total or almost total albuminuria, with a corresponding abundance of tubular casts, renal epithelium and blood cells, impending or actual convulsions, coma or other manifestations of uraemia, rarely the eclampsia of pregnancy, labor, or the puerperium."

These indications have been pretty uniformly agreed upon and at the present time are fairly rlearly stated by most writers on the subject. And yet there is still lacking a proper comprehension of the importance and value of the operation by a large majority of both physicians and surgeons. I would not have it understood by any one that I am an advocate of renal decapsulization for the cure of Bright's disease, for no one really believes that the kidney affected with true fully developed Bright's disease can, by any means, ever be restored to its normal condition. And yet, individuals so affected, constitute a large number of every doctor's patients and are very materially benefitted and their lives indefinitely prolonged, by intelligent hygienic dietetic, and medicinal treatment. So that as a matter of fact, in actual practice, comparatively few people die directly from the kidney condition but are carried off by some other disease which finds an easy prey in an individual whose kidney functions are thus impaired.

A careful study of the evolution of the pathologic process of Bright's disease shows that during the development of the various phenomena attendant upon kidney degenerations, there are clinical signs sufficiently clear cut to enable us to divide the disease into various distinct stages, and we all know that if complications are forestalled and the lives of such patients can be prolonged by any means, the kidney will eventually pass into a stage of contraction, polyuria occurs and dropsy disappears.

CLINICO-PATHOLOGIC EVOLUTION OF THE DISEASE AND RATIONALE OF THE OPERATION.

Acute nephritis and acute exacerbations of the chronic disease, like acute inflammation in other structures, is associated with pathologic vascular engorgement, round cell infiltration, connective tissue proliferation, and consequent distension of the organ, rendering tense its non-distensible true capsule. As a result, impeded circulation, blood stagnation and consequent impairment of nutrition to the specialized functionating renal elements, the epithelial cells lining the uriniferous tubules, occurs finally resulting in degeneration—albuminoid, fatty, dropsical, and in some cases, amyloid in character. With this there occurs squeezing out from the capillaries, of serum and blood cells, and these together with the secretory products of the epithelial cells become moulded into tubular casts blocking the tubules; intensifying the impaired vitality and acting as foreign bodies, causing further exfoliation of the lining epithelium.

The kidney of chronic Bright's disease always presents a degenerative process in the functionating epithelial elements of the kidney, sooner or later becoming associated with, or followed by, fibro-sclerotic changes in the connective tissue. The large white kidney of parenchymatous nephritis presents an organ under high intra-capsular tension, not from vascular engorgement (there is diminished amount of blood), but from dropsical infiltration, fatty degeneration, choking of the uriniferous tubules by casts, exfoliated epithelium and detritus; together with vessel wall hyperplasia, connective tissue proliferation and exudative products in the interstitial connective tissue.

The physiologic effect of such morbid changes is renal insufficiency. Clinically this is marked by autotoxaemia, hydraemia, general anasarca, ascites. hydrothorax, high circulatory tension with cardiac hypertrophy; finally, insufficient compensation and myocardial degeneration, ending in gradual fall of blood pressure to circulatory failure, death being due to this cause.

When the renal process is not too severe

*Read at ,he meeting of the Medical Society of Va., held at Norfolk, Va., Oct., 25-28, 1910.

and of gradual development, upon cessation of the underlying cause and the adoption of sustaining hygienic, dietetic and medicinal remedies, the degenerative process may be checked and there may ultimately result a physiologic exaggeration or hypertrophy of the remaining functionating renal structure, together with contraction of the newly formed cicatroid connective tissue, until finally the organ becomes transformed into the contracted, shrunken kidney of chronic interstitial nephritis, representing a natural effort to compensate for lost of function and to replace degenerated structures. In this the engorgement of the organ is considerably reduced from narrowing of the vessels by hyperplasia of their walls and by proliferation of the interstitial cellular elements with subsequent contraction, in which the fibrous capsule also takes part and becomes densely adherent. As a result, the intra-capsular tension becomes markedly reduced and the amount of blood within the kidney is lessened in proportion to the impaired functional power of the renal parenchyma.

Clinically' there is, from the sclerotic kidney, increased urinary excretion often to the extent of polyuria, disappearance in great part or it may be entirely of the oedema and other mechanical effects of hydraemia, with remittent periods of subsidence of headache and other effects of toxaemia. The compensation is, however, never perfect. Renal epithelium, when once positively degenerated, never becomes properly regenerated nor in toto replaced. The watery portion of the urine may filter through the denuded tubules in even excessive amount, but the poisonous organic elements are insufficiently excreted, since the selective function in the remaining epithelial cells is never adequately exaggerated. Such patients are constantly in danger of uraemia and this is often the cause of death.

Such, in brief, is the picture of the natural evolution of the pathologic process. Upon slight provocation, however, there will occur acute hyperaemia or inflammation with the attendant phenomena of vascular engorgement, extravasation and celiular proliferation, further intensifying the renal insufficiency, and productive of the clinical phenomena of an acute exacerbation of symptoms.

The immediate anatomic effect of renal decapsulization, is the release of excessive intra-capsular tension. In cases of diffuse nephritis, the large white kidney of chronic parenchymatous disease, and in the engorgement accompanying acute exacerbations in the course of any form of chronic nephritis, the organ immediately expands upon incising the capsule. This is not so with the contracted, shrunken, granular kidney of chronic interstitial nephritis where there is no increase of tension. Laceration of the renal cortex is obiviously more pronounced in the contracted sclerotic kidney with the denesely adherent capsule. There is no doubt coincidently some effect on the sympathetic nerves from traumatism, but this has not been definitely demonstrated.

As a result of the removal of this circulatory resistance (the true capsule) and consequent relief of tension in the organ, there is permitted rapidity of circulation, removal of stagnant blood, and intravascular drainage of certain nephrotoxines and other poisonous material, and partial resorption of inflammatory products. With this, the remaining healthy functionating epithelial cells become revitalized, undergo at least physiologic if not anatomic hypertrophy, and an effort is made to partially compensate for the degenerated cells. The local bleeding also favors the depletion and drainage process. The physiologic effect is diuresis. There is increase of urine often to actual polyuria, diminution at least relative of albumin, casts, and epithelial cells, and with this, rapid subsidence, often complete removal of anasarca, ascites and other effects of hydraemia.

The remote effects have been conclusively demonstrated, clinically, experimentally and by a few autopsies in the human subject. There is acceleration of intra-renal fibroid changes, the production of sclerotic kidney; a new connective tissue capsule is formed from the connective tissue cells of the intertubular structure and surrounding cellular proliferation. This like scar tissue everywhere, contracts, becomes dense and immediately related to the renal cortex. It is in a large measure devoid of blood vessels, certainly large ones, and shows no intercommunicating anastamotic branches. The organ becomes firmly fixed and all the clinical phenomena of a rapidly progressive contracted, shrunken kidney are instituted. Such phenomena become apparent generally within a few months (3½ months—Elliott), after which relapses, occur, and death finally ensues. About 75 per cent. of the renal mortality is due to diffuse nephritis, (Hall and Herxheimer). In many experimental cases the new capsule has been shcwn to be completely formed within from eight to twenty days, though for contraction to occur at least a month is required. (Claude, Albarran, Gifford, Hall, Herxheimer and others).

Puncture of the kidney and capsular incisions produce a similar effect in relieving tension, though manifestly less marked than complete decapsulization. The dam-

age to ıe cortex is less severe and the newly ırmed cicatricial capsule essregular in structure.

With this conception of the pathology of the disease, rationale of the operation and subsequent morbid process, it is manifest that the operation is to be reserved purely for advanced progressive, uncontrollable renal insufficiency,—kidney break down—sufficiently severe to threaten life and demonstrably irremediable by less radical measures. Such indications may present themselves during the course of acute or chronic nephritis as rapidly progressive or obstinate oedema, threatening or actual anuria, total or almost total albuminuria, with a corresponding abundance of tubular casts, renal epithelium and blood cells, impeuding or actual convulsions, coma or other manifestations of uraemia, rarely the eclampsia of pregnancy, labor or the puerperium.

In some cases operation on one organ is efficient. Double decapsulization is frequentiy necessary. The unilateral operation should be performed, save when there is doubt that it will be productive of a satisfactory result, in order that the opposite kidney may be available for decapsulization upon a repetition of the indications. In some cases by thus tiding the patient over a few critical months, the natural evolution of the morbid process into the shrunken kidney of interstitial nephritis, may be accomplished. When the result, however, cannot be predictied, it is wise t denude both organs at once. If, durin the operation, collapse ensues and th patient's condition threatens life on t table or immediately afterward, the su geon should rest content with the nnilatera l operation in the hope that improvement may occur.

The technique of the operation is identical with that of nephropexy by the denudation method, saves that the capsule may or may not be excised, after being stripped off and fixation sutures are unnecessary. The tissues are thick on account of dropsy and the kidney is therefore less easy to find. The edge of the pleura may be depressed by the weigh of the hydrothorax, and must be guarded against incision. Hypodermoclysis and enteroclysis are of no use while the operation is being done, since the tissues are sufficiently "water-logged" to furnish the necessary fluid to stimulate diuresis, and the additional fluid throws work on the already weak heart. The wound should always be closed, though a gauze drain for the dropsy, in the subcutaneous tissues is useful for the first twenty-four or forty-eight hours.

The operation may be done rapidly under nitrous oxide or light ether or chloroform anaesthesia, in some cases with the aid of local anaesthesia by the infiltration method. Ante and post operative treatment must be rigid to the minutest detail, guarding particularly the circulatory apparatus and against pulmonary complications, notably oedema. The most rigid aseptic technique must be employed and the water (urine) soaked dressings must be changed sufficiently often to maintain a dry wound.

The subjects are always poor surgical risks. There is always cardio vascular disturb ce, often pulmonary oedema and and a ten ncy to pleuritic inflammation; invariably uto-toxaemia; at least twenty to twenty-five per cent. of all cases present a tendency to nerve degeneration as shown by neuro-retinitis; the digestive apparatus is impaired, the skin sluggish, liver and bowels nonactive and the subcutaneous tissue, infiltrated with dropsy, is ready to invite wound infection and oppose repair.

The operation, while comparatively simple, is therefore attended with a high mortality, variously estimated at from 20 to 47 per cent.

The operation should not be performed until all less radical measures have failed to give relief—should always be regarded as a last resort, and is contra-indicated by impending circulatory dissolution.

I have had the opportunity to operate and to assist in operating on three patients presenting the indications for operation, namely progressive uncontrollable dropsy, almost total anuria and the other signs of kidney break down, and it is for the purpose of showing that there is really a means of completely and quickly relieving these patients of their dropsy, that I report the cases in some detail. In each case the patients had been for months under the care of thoroughly competent physicians who had conscientiously and intelligently employed all known medicinal, hygienic, and dietetic remedies for the relief of dropsy all to no avail. In each case the patient was in such desperate condition that it looked as though they would die at any minute from cardiac failure incident to the dilatation produced by the disease. Indeed it was quite a surprise to those of my friends who saw the patients and the operation, that they were able to stand even the slight amount of the anaesthetic. And yet, in all cases, the operation was followed by enormous polyuria and the dropsy was immediately relieved. I repeat, however, that the operation should in no sense be regarded as a cure for Bright's disease, but purely as a palliative measure to aid the patients in the relief of oedema and to eliminate loxic material wich is re-

tained in the system as a result of crippled kidneys.

Seven years ago while I was resident physician in the hospital of the University of Pennsylvania, I assisted Dr. Charles Frazier and Dr. Edward Martin operate upon two such cases referred to them by Dr. James Tyson. Each presented the indications herein outlined, each was immediately relieved, and while neither was cured of Bright's disease, neither developed oedema and both cases were kept under observation for two years. one finally dying of uræmia caused by fibroid kidney. One of these cases was reported by Drs. Tyson and Frazier at the meeting of the Associa- of American Physicians in 1904.

D. M. case No. 1331, age 43, colored, kindly referred to me by Dr. George Barksdale. About the first of April 1909, after having been exposed in the snow, he was forced to go to bed on account of oedema of the feet, shortness of breath, indigestion, cough, and the other signs of heart and kidney break down. He was treated actively and kept in bed from the first of April until I saw him Sept. 13th. In spite of all this he failed to improve and his condition grew steadily worse, the œdema becoming so severe as to necessitate subcutaneous tapping 15 or 16 times. The middle of Sept. I saw him the first time. Upon examination I found a very large negro man, with gasping dyspnoea so severe that he could not lie down but had to sleep in the sitting posture. The thighs measured 28 inches' abdomen 43 inches, right wrist 8½ inches, left wrist 9 inches. The scrotum was the size of the silk hat which he wore. The skin of both extremities and of the abdomen was ruptured in innummerable places and from these the water was leaking over the fioor and bed. His heart was enormously dilated, the apex being diffuse, scarcely visible and located in the middle of the axilla. Pulse was irregular, intermittent, and feeble' there was mitral regurgitation and other signs of dilatation of the heart. So that his general condition was extremely distressing.

I placed him in bed at rest for 48 hours during which time he passed only 16 ounces of urine each 24 hours. His oedema was increasing, the cardiac condition failed to improve. The urine was loaded with albumin and the casts found in cases of large white kidney.

On Dec. 15th 1909 I operated upon him. I realized that the man's general condition, especially with reference to his heart, was frightful and that he was liable to die on the table. Indeed those of my colleagues who saw him had no idea that he could stand even a slight amount of an anaesthetic. I made the skin incision under cocaine anaesthesia preceded by a hypodermic of hyoscine and morphine and with the aid of a very light chloroform anaesthesia, very kindly abministered by Dr. Barksdale, I was able rapidly to decapsulate the right kidney after which he was placed immediately in bed. The operation took about 15 minutes and had to be done with the patient in the sitting posture on account of the fact that it was impossible for him to lie down. As soon as he recovered from the light anaesthetic he voided 16 ounces of urine at one time. The first twenty-four hours after operation he voided 107 uunces, the second twenty-rour hours 130 ounces, and the third twenty-four hours 150 ounces.

I kept him in the hospital until Oct. 4th when he was free from oedema, eating well, feeling well, and voiding 90 ounces of urine every 12 hours- On the 12th of Oct. I exhibited him at the Academy of Medicine and Surgery in Richmond at which time he was still free from oedema, his wrists measuring 6½ inches instead of 9 inches before operation, the thighs 19 inches instead of 28 before operation, the abdomen 33 inches instead of 43 before the operation.

The patient remained well for a long time, resuming his work as a preecher and was enjoying life for about six months at which time he had a recurrence of his cardiac symptoms, dyspnoea etc., and went to the City Hospital, after which I lost sight of him. I was informed that he died in April 1910, six months after the operation, thi immediate cause of his death being dilatation of the heart, but a short time before death, he developed oedema of the extremities and lungs though this was never as severe as before he was operated upon.

The case therefore illustrates the immediate effects of the operation even when performed on one kidney. I purposely declined to decapsulate the left kidney at the primary operation believing that the unilateral operation would be sufficient for the time being and trusting that I might have the opportunity to do the operation on the left kidney upon a return of his symptoms. The second operation was not done. He died under the care of a physician who did not see fit to advise it.

Finally, in conclusion, I would urge that in selected cases where the general medicinal and other treatment has failed to produce relief and where death is threatened from kidney break down, such patients are entitled to the certain relief afforded by the removal of the capsule from the kidney. For while the operation is a purely palliative measure, there are many palliative

remedies which must be employed in the practice of medicine and surgery. It is conclusively shown that removal of the capsule of the large white or acutely engorged kidney will, with certainty, be immediately followed by profuse diuresis and relief of dropsy.

NOTE.—Since this article was written I have had the opportunity to operate on a fourth case (Case No. 1601), Hattie B., a white girl, age 9 years, referred by Dr. John S. Gale, Ivor, Va., the victim of a subacute hemorrhagic nephritis of about three months duration. This little girl was enormously swollen, the urine was very bloody, 60 per cent. by volume albumen, contained abundance of casts, hyaline, blood granular and leucocytic. Kidney function, estimated by Dr. E. G, Hopkins according to the method of Geraghty, showed impaired function to about 60 per cent. of normal. She was voiding from 6 to 16 ounces of urine in 24 hours. She also had an ulcerative stomatitis.

Under light ether anæsthesia administered by Dr. Goad of the Sheltering Arms Hospital, I made a rapid muscle splitting incision down to right kidney, incised and pealed off the capsule, closed the wound except for a small drainage for 48 hours. At the end of the third day the œdema had disappeared and she was voiding 40 ounces of urine a day. At this time she took cold, had acute earache and the œdema returned for a few days, but under ordinary medical treatment, purgation, diuretics, she entirely recovered and now at the end of two weeks the œdema is entirely gone, she is eating and sleeping well and voiding from 45 to 50 ounces of urine in 24 hours. She is up and about the house.

In this case I was aided very much by the kind attention of Dr. A. G. Brown who managed the case from the medical aspect. I think there should always be a competent medical man associated with the surgeon in the management of these cases, and I am much indebted to Dr. Brown for his kindness.

I have the fifth case now under observation in which there is enormous dropsy and all the signs of a sub-acute parenchymatous nephritis but I hope that the case will improve under medical treatment. If such is not the case I shall operate later.

219 E. Grace St.

Anxiety Neurosis.*

By S. T. Rucker, M. D., Memphis, Tenn.

Anxiety is derived from the latin word meaning to cause pain. It is a psychic complex, or a state of mind characterized by fear and apprehension, and attended with a sense of malaise and precordial distress. Anxiety has a synonomous relation to worry. Perhaps worry may be best considered as a continuous state of anxiety.

The impulse to fret is hereditary, and is the primitive language of the new-born infant. Its fits of crying, are efforts to make known its wants, or to express indignation when irritated. But the infant is free from anxiety and worry. It is when man becomes conscious that he is a living, thinking being and learns that he must regulate his life, and adapt himself to certain environments, that he becomes subject to the state of mind called anxiety. The physically strong and so called normal person have attacks of the acute transient form of anxiety, when for a time, some trying ordeal may disturb the mind to such an extent that it becomes anxious and fearful. In most instances, however, a readjustment of the thought process soon takes place and equillibrium is regained. When one becomes sick, feeble and nervous, the psychic poise is more easily disturbed. There is an abnormal reaction to irritating annoyances and depressing influences. Harassing thoughts, not only find lodgment and entertainment in the mind, but may be revolved in a vicious circle until the mental complex takes the form of an obscession and the patient is beside himself. Excepting the infant, the sage and philosopher only are exempt from anxiety and worry. He who, by patient effort, self-sacrifice and self-discipline, acquires a calmness of mind, that is patient under all trials, that is sublimely gentle and poised under the most trying circumstances, he alone is possessed of the wisdom and truth that is free from anxiety and worry.

Anxiety and worry are distressing symptoms in many of the so-called neuroses, but are most common and constant in neurasthenia, hysteria, melancholia and psychasthenia. The symptoms of neurasthenia are protean. However, there are "three central symptoms around which all other revolve with varying constancy, an irritable weakness, a tendency to fatigue and an inability to sustain prolonged effort. Anxiety and worry are also more or less constant symptoms. In one of my patients there was a morbid and constant anxiety about his condition, and an exaggerated importance was attached to insignificant symptoms. A lady patient complained that she was in a constant state of worry and had no peace of mind. Another patient had a morbid fear of being assassinated.

In many cases of hysteria, anxiety and worry are annoying symptoms. The patient

*Read before the 27th annual meeting of the Tri-State Medical Association at Memphis, Tenn., Nov. 15-17, 1910.

may constantly refer to some sensation which she interprets as an incurable malady. One patient, whose appetite and digestion were good, complained incessantly that she had an incurable stomach trouble. Another patient had a morbid fear of dying.

In melancholia and psychasthenia, anxiety may take form of a fixed obscession or hallucination, and its manifestation is often distressing to witness. One of my patients who was well fixed financially, would walk the floor, crying and displaying great agitation over the belief that she had brought financial ruin to her family. Another patient, who had lost a child by death, insisted that her neglect was responsible for the death. Another patient, who had recently become estranged from her lover, believed she had committed a dreadful and irreparable wrong in writing a certain letter. The precise letter was returned to her and found to be entirely proper. She ignored the letter and the halluciation continued until she was practically well.

Some interesting, though obstinate obscessions have come under my observation in psychasthenia. A lady patient, whose physical health was good, but who had been treated as a nervous invalid for five years, had a morbid fear of having "a spell." She had never had the spell, neither could she describe the kind of spell she feared. She could not be induced to leave home for fear of having "the spell" and never get back. Another patient feared she would commit the unpardonable sin and that her soul would be lost. A patient now under observation has a constant fear of getting weak, and that he might topple over and die. He was brought to my place in an ambulance and would not even raise a hand to feed himself for fear of getting weak. He has been in this condition for seven years: weighs 250 pounds and physical condition is good.

When anxiety and worry are symptoms in the illness of patients, there is no drug or remedy that will take the place of psychotherapy, The physician who has the ability to put his patient in a cheerful frame of mind and fix the belief that he will recover has at his command a most effective therapeutic procedure. Mental attitude or state of mind is a larger factor in the illness of all patients than is generally believed, and suffering that one would relieve may be increased through ignorance of a practical application of psychotherapy. The function of the mind is to think,—thoughts are cumulative and have a tendency to find expression. The function of an organ is stimulated or inhibited by the character of thoughts that dominates the mind. Fear and grief will blanch the face and stop digestion, while hope and good cheer will relax the arterioles and stimulate the circulation.

Solomon, the Wise, recognized the power of the mind over the body when he said:

"A merry heart doeth good like a medicine;
But a broken spirit drieth the bones."

A case of Diverticulitis of the Sigmoid.*

By W. Lowndes Peple, M. D., Richmond, Va.
Asiistant Professor of clinical Surgery, University college of Medicine.

Mrs. S., aged 50, has 4 children, the youngest aged 23. Her menses stopped 3 years ago. Father died of some chronic bowel trouble which lasted five or six years. The last year he spent in bed. Mother died of dropsy. There is no tuberculosis or cancer in the family history.

PERSONAL HISTORY.

No serious illness except difficult and instrumental labor. Bowels always regular until 3 years ago, when she began having from six to ten actions a day, with much straining and bleeding. This has continued at intervals up to the present writing, and during this period of three years, her bowels have never been perfectly normal.

Fifteen months ago (October, 1907), she had an acute obstruction which lasted three days. The pain was intense. Enemas, purgatives and hot applications were used freeiy until relief came. Twele months ago, (January, 1908), she had a second attack of obstruction, similar to the first, which lasted two days. One month later (February, 1908), she noticed a lump in her side just internal to the left, anterior superior iliac spine. This increased in size for two or more weeks and culminated in a third attack of obstruction (February, 22). This was relieved by salts; and with the opening of the bowel, the lump subsided.

Seven months later (September, 1908), the lump reappeared, accompanied at first with much pain and tenderness. It soon subsided, howeuer, and did not give a great deal of trouble until December 6th, about three weeks before I saw her. During this period of three weeks, she was confined to bed, and was very thirsty and hot, though her temperature was not taken. She suffered greatly, had taken may purghtives and had been blistered and painted with iodine.

On admission to the hospital, December 26, 1908, her temperature was 102, pulse 120, and she was suffering intensely. She was kept in bed several days, the tempera-

*Read before the Richmond Academy of Medicine and Surgery, Oct. 24 1910.

ture and pulse getting somewhat lower.

EXAMINATION.

A small, pale woman who had done much hard work, suffering with paroxysmal obdominal pain requiring morphine for relief. The abdomen is distended; tormina, accompanied by gurgling, the peristalsis plainly visible through the thin abdominal walls. Abdomen is soft and pliable.

There is a hard, sharply defined tumor the size of the fist, immovable fixed to the iliac wall, its center opposite the anterior superior spine. It is quite tender, but does not fluctuate.

Rectal examination. Kelley's proctoscope was passed 18 inches with very little resistence. Pain was so great as to make an examination by vision unsatisfactyry.

The woman is not cachecticf nor is there an evident anaemia.

DIAGNOSIS.

(Tentative). Carcinoma of the sigmoid with probable abcess formation about it.

Colostomy was advised.

OPERATION.

January 1st. Right rectus incision revealed the omentum glued to the parietal peritoneum; a large, smooth mass apparently behind the peritoneum firmly attached to the iliac wall; hollow of sacrum and lower pelvis normal. Stripping the omentum up toward the tumor I broke into an abcess and avacuated from four to six ounces of foul-smelling, fecal pus. The general cavity had been well guarded with gauze; so after mopping out the abcess, the linea incision was closed loosely, and a left McBurney was made close to the iliac crest directly into the abcess. Without any effort at breaking up adhesions, exploration or discovery, this wound was fitted with drains and the patient put to bed.

SUBSEQUENT COURSE.

The wound drained pus and fluid feces from the first. There was immediate relief of pain; and the lump rapidly subsided. The median wound suppurated but never drained feces. The bowels moved daily, about half coming through the fistula and half through the rectum.

One day, she discharged through the wound a body just the size, shape and color of half a scuppanon grape skin. It proved to be dessicated feces and was evidently a cast or mold of the diverticulum.

The patient began to improve in strength until she was able to be up and about in the room when, without apparent cause, she began to lose ground, grew rapidly weaker and weaker and died February 26, fifty-six days after the operation.

I was unable to get an autoysy, but the whole picture may be taken as an illustration of a sigmoid diverticulum, which had undergone rupture, with abcess formation about it.

1000 W. Grace Street.

Clinical Observations on Renal Stones*

By James M. Parrott, M.D., Chief Surgeon Memorial Hospital, Kinston, N. C.

Years of experience have convinced me that renal stones are more often present and overlooked than ordinarily thought. They are very often taken for lumbago, neuralgia, muscular rheumatism, gall stones, appendicitis and even that much imposed upon and indefinite something called indigestion. I am sure that practically every surgeon of experience will agree with me in the above statement. Oftentimes the diagnosis is difficult to make. Obscure indefinite "pains in the back" are sometimes indicative of renal stones, and while I do not believe that every lumbar pain means stone in the kidney, I do insist that every such case should be investigated with the idea that it may mean such.

It is really remarkable how infrequent the aged are so affected, and the experienced operator is struck by the frequency of its appearance in young adults, and particularly in men. The great majority of my cases have been young men between 20 and 30. That it has a special predisposition to young male adults, I am unwilling to state, though the statistics seem to indicate such. Women are certainly much less frequently attacked than men.

It is important to note the frequent absence of one or even two, of the three classical symptoms of stone in the kidney. My attention has been directed to this condition by the presence of pus in the urine, together with loss of weight, progressive debility, etc., existing with practically no pain in the region of the kidney. On the other hand I have seen several times this condition in patients who did not show urinary pus or blood, even though an analysis was made frequently, and at intervals. That much praised instrument, the X-ray, has several times failed to show stone when present. It, like all other modern diagnostic apparatus, must be considered only as one of several aids. I recall two cases which did not show a stone-shadow in skiagraph, and yet on operating, I removed large stones, and several smaller ones. A combination of clinical observation both subbjective and objective, count for most in making a diagnosis of this condition. In fact, when confronted by a case which presents indefi-

nite symptoms, the surgeon must call to his aid not only our scientific diagnostic appliances, but also the old-time clinical data methods. In this connection, I beg to say that microscopes, X-Rays, et cetera, are exceedingly valuable, and should be used, but I often really yearn for the power of observation and clinical interpretation possessed by the masters of yesterday. Bedside study is really hard work—it is old-time—it requires constant application. It is a jealous master and demands all of one's time. It will not permit the surgeon to study or think of anything else. It will more than repay one, however, for any amount of work or trouble.

The correct diagnosis of stone in the kidney is oftentimes easy, but is usually very difficult. Seldom do we see a typical text book case. Most often we need all the resources at our command to make a satisfactory diagnosis.

Operation.—The operation for the removal of renal stone from the kidney like its diagnosis can be, and sometimes is, very easy, even to one of limited experience. On the other hand, it is often tedious and difficult even to the expert. I have per formed the operation in a few minutes, and a few days thereafter have worried over a case for an hour or more. Every surgeon has his own views as to the best operative technique. The truth is that operation should be selected that best suits the particular case. No hard and fast rules can be followed. I am sure I have done it half a dozen different ways. The oblique incision appeals to me most, and is most frequently used in our hospital. No more muscle fibres should be cut than really necessary, and, if possible, the sheath of the erector spinæ had best be left unopened. Next to the oblique Kœnig's incision or a combination of it and the oblique (really a decided oblique) is to be preferred. The incision used by the late Dr. Edebolds for his decapitation proceedure is not so desirable for thie operation as one of the above. One word of warning should be uttered in this connection and that is tnat the possibiliy of having to follow the cureter almost down if not quite so, to the bladder to remove a second stone in it (or it may be the only one to be found) should be kept in mind when making the incision.

It should be remembered that we occasionally find a kidney with a very short pedicle and closely adhered by thick, dense adhesions which for one reason and another cnn't be broken up with safety. Such condition will not permit delivery of the kidney on the back, and may even prevent the stable control of the kidney undelivered. Only a fool-hardy surgeon would cut a kidney in section (post mortem cut) under such conditions. A long oblique incision is the only practical one under such circumstances, in fact, is the only one to which the surgeon can hope to reach the pelvis (if stone be there) for the removal of the stone.

If the pedicle can be grasped, or the kidney held firmly, danger of hemorrhage (inability to control) is practically nothing. It is then best to cut boldly through the kidney substance from cortex to pelvis (even an entire bi-section as done post mortem) than to remove a stone by incision through the pelvis. Pressure on the pedicle prevents bleeding (this is enormous in a healthy kidney—not so great in a diseased one) until the introduction of cat gut sutures which readily controlled the hemorrhage. Constriction of the renal vessels is really not necessary, however, before cutting through. Under such circumstances the work on the kidney must be done very rapidly because of the excessive hemorrhage. The kidney substance unites quickly and, uniformly. I have never had a urinary fistula to follow this procedure. This distressing sequela will result sometimes (not often) even in the hands of the most careful after-removal through the pelvis.

Dangers.—The danger of infection is practically nil. There are several points or localities of the body which are very resistant to infection (I call them "points of resistance"), such as the mouth (witness how quickly wonnds of the lips, cheek or tongue heal) rectum, peritoneum (not as great as some seem to think or as isolated cases would indicate). The kidneys and surrounding structures belong to this group of points, or points of great resistance. However, one should not be careless in one's work here any more so than in the abdomen. Careful, very careful, asceptic preparation counts for much—let that be remembered.

During the operation the pleura may be wounded, and this danger is especially great the twelfth rib is absent and the operation is using that as a land mark. It may also be wounded even when a thirteenth rib exists, should it be situated exceedingly low. This is sometimes the case. Fortunately, this is a very rare complication, but its possibility should be remembered when cutting upward.

The nerves should not be injured, and when they present themselves in the incision should be pushed aside. If this is not possible, especial care should be used in handling them. I really consider this of very great importance. Their function, while not necessary is valuable and should not be destroyed wantonly. If lighted at

any stage (either by ligature or muscle suturing) they are more than apt to cause a good deal of pain for weeks (or even months) after the operation. Fortunately, this is eventually overcome, but is more than annoying while it lasts. I well remember such a case which occurred in my early experience. The patient suffered severely, and was a source of much worry to me for quite a while.

There are often two or three small stones present besides the larger one. These should be searched for and removed. However, should one be overlooked, unless impacted in the ureter, or embedded in a calix, it will come away with the discharge subsequently, if the pelvis is opened. It is absolutely necessary that all stones be removed at time of operation if the removal is effected by incision through the renal parenchyma. Examination of the ureter for an impacted stone should be made in every case.

Post Operative Treatment.—Post operative treatment is very simple, though sometimes tedious. Every case should be more or less drained for a shorter or longer time, according to the indications. When the stone is removed by cutting through the renal substance proper, the drainage can be dispensed with in 24 or 48 hours. If removed by cutting into the hilum, the drain have to may be continued for as much as several weeks. It does not increase the liability to urinary fistula, no matter how long continued within reason; on the other hand, it should be continued as long as urine escapes. Mickulictz drain for the first 48 hours is best; after that a rubber tube is to be preferred. If properly and ideally performed through a limited incision, there is no danger of hernia later, though if much tissue be divided by long incision, a hernia may result even after reasonable care in suturing.

The patient should be kept in bed no less than three weeks for obvious reasons. The administration of urotropin is valuable theoretically, and though not essential, it is of benefit in every case, proving of even great value when pus is present in the pelvis, or localized abscesses found in the kidneys. No other special after-treatmeni is required, and only such general nursing pursued as in the average post operative case.

Finally let it be remembered that sometimes, though rare, a stone may be present in a tubercular kidney, the stone being the apparent indication for operation. In such a case, the entire kidney should be removed; careful examination through the incision of the opposite kidney should be made before doing such radical work.

The Physics of Light Therapy.

By Thomas D. Crothers, Hartford, Conn.

This was an exhaustive study of the theories of light, of the forms and modifications of light, and of the diverse ways in which light is utilized in the treatment of disease.

Report on Direct Continuous Currents, Including Electrolysis, Electrochemical Surgery, Ionization and all Apparatus Connected Therewith.—Dr. C. Betton Massey, of Philadelphia said the question of the value of zinc-mercury ions or copper-mercury ions in the treatment of obstinate sin uses had arisen in connection with three cases in his hands the past year. In one case temporary benefit was shown, but the condition later proved to be malignant. In a case of sinus of the abdominal wall the treatment was moderately effective but the patient did not persist in the treatment and was later operated upon. Better results were obtained in treating a case of rectal fistula.

Report on Photo-Therapy and Apparatus.—Dr. Charles R. Dickson, of Toronto, Canada, said that further observations served to confirm the theory which was now a well established fact that light rays do penetrate the skin and underlying tissues and exert their influence not alone locally as when concentrated in the treatment of local lesions even to the point of dessication and cauterization, but were taken up by the circulation and induced systemic changes which were not equaled by any other physical agent.

Report on Mechanical Vibration Therapy, Exercise Therapy and Apparatus.— Dr. Fred H. Morse of Melrose, Mass., said the committee had found nothing to report this year in the way of new designs of apparatus. A slight canvas made among physicians had shown that vibratoro apparatus in use five years ago was still in use.

Report on Hydro-Therapy, Thermo-Therapy and Apparatus—Dr. Francis H. Munroe, of Newark, N. J., referred to the detailed report made by this committee in 1908. Among the late discoveries of importance in the application of heat was "Hyperthermine," a mixture of waxes and resins. The report also dealt with the use of hot air currents in certain diseased conditions.

Report of Dietetics.—Dr. Bryon S. Price of New York read this report, which gave the present day opinion of authorities in experimental work with regard to foods and their effects when taken into the body, their relation to auto intoxication, especially having in view the prevention of arteriosclerosis and allied conditions. The report considered in this relation the physical, chemical, physiological and pathological

conditions of food and of digestion and elimination. Also the scientific explanation why milk, farinaceous and other foods acted unlike in different conditions; the very important part played by the lactose contained in farinaceous articles, and in milk, differences, etc.

Report of Standardization of Therapeutic Measures.—Dr. William B. Snow of New York, said that a survey of the year's progress in physical therapeutics marked a movement toward a more general tendency to the adaptation of rational standardization, away from irrationalism and empericism. The report discussed the various physical therapeutic measures in detail.

Report of X-ray Treatment of Spleno-Myeloid and Lymphoid Lukemia, with Blood Findings in Each—Dr. J. W. Torbett of Marlin, Texas, reported two cases, one of each variety, in order to emphasize the importance of observing Pancoast's and Stengal's precautions in treating each class of cases. In the first case the patient died sixteen days after taking the first x-ray treatment. It would have been better to treat the arms and legs alone as Pancoast had advised. The second case showed some improvement under x-ray treatment.

Psoriasis—Dr. Herbert McIntosh of Boston read this paper. He reported several cases of psoriasis in which the characteristic eruptions were removed by a combination of physical methods of treatment. In his practice he had usually associated the x-ray with the light treatment, in a desire to hasten the cure, though the x-ray could probably be dispensed with. One should not fail to counsel hygienic living, proper exercise and regulation of the diet, excluding meat as being unfavorable to the progress of the cure.

Report on High Frequency Currents.—Dr. Frederic deKraft of New York, read this report. He called particular attention to the bipolar utilization of the D'Arsonval current. This could be used in the cavities of the body, for instance for destroying a papilloma of the bladder; in the nasopharynx; and also for its sterilizing effect on infected tissues, abscesses, pustular acne, etc.

As a part of this report Dr. Frederic M. Law of New York detailed experiments that he had conducted to show the bactericidal effect of high frequency currents.

The Treatment of Inflammation not Complicated or Caused by Infection.—Dr. Wiliam B. Snow of New York read this paper. The systemic proper application of the static current, in the case of a sprained knee, at the first administration softened the exudation, relieved the pressure and consequently the pain, relaxed muscular tension, and restored motility and utility to the joint. The best means for relieving local inflammations in which infection did not enter as a factor were the application of the static wave current, the static sparks, the static brush discharge or the direct vacuum tub static current, singly or conjointly. In prostatitis and seminal vesiculitis the results had been most striking. Also in dysmenorrhœa and subinvolution and urethral carruncles. Neuritis, herpes zoster. intercostal neuritis, tic doloureaux and Bell's palsy had been successfully treated in the same manner. Other conditions treated in this way were, anterior poliomyelitis, rheumatoid arthritis, traumatic arthritis and phelbitis.

Electricity in the Treatment of Gout.—Dr. Frederic deKraft of New York read this paper. Treatment by drugs had been unsatisfactory. He recommended auto-condensation with sufficient D'Arsonval current to produce perspiration. In his experience the pain and stiffness in the muscles were the last to disappear under the usual mode of treatment. The use of a powerful and thoroughly concentrated resonator effleuve accomplished a most valuable purpose by reason of its deep contracting effect on the tissues and the blood vessels. As improvement took place the static brush discharge might be substituted with benefit. Diet and gentle exercise should not be neglected.

Some Laboratory Findings in Diseases of Metabolism which Question that These are Primarily of Metabolic Origin. The Role of Chronic Intestinal Disorder in the Production of Some of Them.—Dr. Anthony Bassler of New York, discussed the etiology and symptoms of chronic intestinal putrefaction and its treatment. After emphasizing the importance of regulation of the diet, he mentioned his new method of treating such cases by the instillation of live bacteria, grown from the patient's or others' stools, and delivered in billions and trillions into the rectum at intervals of a few days. At the present time he had cases that were being successfully treated with different strains of bacteria.

The Etiology and Treatment of Eczema.—Dr. Herbert F. Pitcher of Haverhill, Mass., read this paper. He believed that the majority of cases were due to some metabolic or vasomotor disturbance, and the most prominent cause of that disturbance was overeating. The hygienic and dietetic treatment should be attended to. The internal treatment was symptomatic. The external treatment of acute eczema should be soothing and protective. The blue light should be used in the early stages, latern, the x-

ray and the static brush discharge. The x-ray was the most important. It was the most valuable remedy for the relief of the intense pruritus which accompanied the disease. It was the last court of appeal in many cases of the chronic form, and it seldom failed if properly used. In the subacute form and in the vasicular and seborrhœic varieties a very low tube should be used, the treatments lasting from ten to fifteen minutes. Where there was much induration the static brush discharge would hasten towards a more rapid resolution. The affleuve from the high frequency currents or from the vacuum tubes was also beneficial in this type.

Osteo-Arthritis of the Spine.—Dr. Frank E. Peckham of Providence, R. I., described this condition in detail. He emphasized the importance of finding the focus of the trouble and the cause before beginning treatment. Autointoxication was the cause of most such cases. In the treatment of this condition there must be produced elimination of toxic material from the tissues locally and a stimulation of the physiological processes to perform their duties in a more nearly normal manner. This might be accomplished by physio-therapeutic measures, no one modality alone usually giving as much benefit as a combination.

Report of a Case of Splenic Leumemia Successfully Treated by Modern Methods.—Dr. G. W. Strobell of Rutland, Vt., reported this case. Fowler's solution, Blaud's iron mass and blue mass were used. X-ray treatments were made over the spleen, alternating with chlorine cataphoresis the treatments each day concluding with static insulation. By the end of the fourth week the patient declared she had not felt so well for twenty years. The myelocytes were reduced from 50 to 15%. and the size of the spleen was reduced two-thirds. At the end of the second month the spleen, which had been the size of a man's head, was scarcely to be felt

Lumbago.—Dr. F. Howard Humphris of London, England, read this paper. Lumbago should be distinguished from the neurotic spine, from sacro-iliac disease, from cancer of the spine, cancer of the sacroiliac notch, from the pain from an enlarged procstate, from the back-ache which ushered in dengue, influenza and other conditions of toxic origin, from Pott's disease and from sacro-iliac relaxation. The ideal treatment was to see that the bowels moved freely with mercury and a saline. Sodium salicylate and sodium of citrate of each 20 grains should be given in a glass of hot water every four, five, or six hours. The 500-candle power light should be applied for fifteen or twenty minutes, followed by the static wave current for the same length of time.

The Treatment of Chronic Metritis with Descent or Displacement.—Dr. G. Betton Massey of Philadelphia, read this paper. The form of treatment that he preferred in these cases, when not accompanied by inflammation of the adnexa was the intrauterine employment of twenty to sixty miliampores positive, of the constant current, diffusing copper-mercury ions from the amalgamated electrode for four minutes about twice a week, each application being followed by a strongly contracting induction current from a coarse wire secondary.

The Treatment of Cataract by Electricity.—Dr. Samuel J. Harris of Boston, discussed the history of cataract, the anatomy of the lens, the different varieties of cataract, their etiology and treatment in detail. He reported a number of cases of cataract successfully treated by the direct or galvanic current, a special form of electrode being used over the eye. Mature cataracts were not suitable for this treatment, and he preferred to operate in such cases. But he had had experience in a large number of incipient cases, and many of these had been able to cure. The subject was still in its infancy, but the rapid progress so far made encouraged him to continue investigation aloug this line.

Oscillatory Desiccation in the Treatment of Accessible Malignant Growth and Minor Surgical Conditions. An Improved Technique Evolved from Fulfuration.—Dr. William L. Clark of Philadelphia read this paper, drawing the following conclusions: A current from a static machine of large output with properly adjusted accessories is capable of producing desiccation in morbid tissue. We are able to destroy malignant growths without opening up blood or lymph channels. It is possible to get every graduation of current, from the most stenuated to the most intense, producing simple stimulation, desiccation or cauterization. It is obviously a styptic intense in effect, and a sterilizing agent in infected wounds: or following an sxtensive surgical operation where there is a suspicion of infection or malignancy it would appear to be ideal in instantly sealing up blood and lymph channels. In cancer of the breast where the axillary glands are involved a surgical procedure is indicated, but on the first appearance it might be used in arresting further recurrence. It might be used in cancer of the cervix to supersede the curet and cautery as a palliative measure. We can apparently accomplish as much in a few seconds by this method in malignant growths as by the x-ray in weeks or months. In

disfiguring neoplastic blemishes of the skin we have a potent weapon.

Reactions in Physical Treatment.—Dr. F. H. Morse of Melrose, Mass., read this paper. Physicians doing this work were often confronted with the statement from their patients that they felt worse the next day after treatment, but that they felt much better the second or third day than before treatment. This disturbance was unquestionably due to a sudden liberation of toxins, the lymphatics becoming overloaded before the emunctories could take care of the extra work suddenly thrown upon them.

Remarks on the Electrical Treatment of Interstitial and Memorrhagic Fibroids of the Uterus.—Dr. C. Betton Massey of Philadelphia, read this paper. He said it was our duty to use this method if possible in those patients whom it might save from the risks of an operation. Most important, particularly in the hemorrhagic cases, was the association with the Apostoli treatment proper of the x-ray applied through the abdominal wall. From an experience in a number of cases he was convinced that it was a valuable adjunct in large tumors. Its use filled in the time between the all-important intra-uterine treatments, shortening the total time required for the treatment.

X-ray and Light in Infections.—Dr. F. G. Tice of Roanoke, Va., read this paper. He reported a number of cases of hay fever treated with bland oil atomization and insulated low vacuum high frequency tube to each nostril, with prompt cures. Also cases of acute infections treated with the light and x-ray.

Electric Anesthesia in Human Surgery. Electric Sleep by Unipolar and Wireless Currents.—Dr. Louise G. Rabinovitch of New York gave an account of painless amputation of the toes under local anæsthesia due solely to passing through the leg a constant current of low amperage and low voltage had no uncomfortable sensation.

Dr. Robinovitch described experiments in which she could at will cause strong contraction in specimens of muscle from a frog placed at a distance and without any connection with the instrument. Again by wireless methods animals were caused to continue asleep for several hours and so long as the wireless current was being generated.

A Noteworthy Case of Sciatica.—Dr. J. Willard Travell of New York gives the full history of a case of sciatica of nine months duration which during the last three months received constant and thorough treatment in one of our large hospitals along the usual lines without appreciable improvement. Sedatives were given regularly at night and the patient could not sleep in bed.

Treatment was begun with light, the static wave current and static sparks on the third day after leaving the hospital and all medication was stopped. The patient was able to sleep in bed after the third treatment and was entirely and permanently relieved of all pain after the seventh treatment, treatment being given daily,

Infantile Paralysis.—Dr. Almerin W. Baer of Chicago, Ill., draws attention to the prevalence of the disease and to the many cases of deformity and paralysis which continue unrelieved in spite of all treatment commonly employed. He finds that contractions and deformity can be relieved and that the muscles will regain their tone and function even after many years by the use of the direct current applied to the spine followed by the static breeze and sparks, treatment being given three times a week for a number of weeks.

Modern Malpractice in Gynecology.—Dr. Arthur W. Yale, Phila., Pa. This is a plea for greater conservatism in gynecological surgery. A few years ago tubes and ovaries were removed indiscriminately where now removal would not be contemplated nor tolerated, but the conservative movement has not yet gone far enough and such operations should not be attempted in cases which are curable by electrical and physical methods of treatment. That much pelvic disease is readily curable by such means is not well appreciated by many surgeons.

Paratyphoid Fever With Report of a Case.

By William H. Smith, M. D., Bailey, N. C.

Paratyphoid fever as an entity has been known only for the last five or six years. Text books published as late as 1905, make no mention of it, and the first journal articles appeared about 1904.

Its great similarity clinically to typhoid probably is the cause of the neglect shown it by investigators.

Bacteriology.—The causative agent seems to be several as Gates[1] has reported the Beta strain present and Proeælier[2] and Roddy have reported the Alpha strain as being the offending organism. Buxton reports finding the paracolon bacillus present. Hence in the agglutination tests not only the Alpha and Beta strains of the paratyphoid but the paracolon bacillus should be used.

Pathology.—With about 15 autopsies reported, the exact pathology is still a disputed question. All agree that the spleen is enlarged, but on the subject of intestinal

lesions there are different opinions. Hughes in his textbook says intestinal ulceration is never present. Anders in his book says there are occasionally non-specific ulcers. Wells and Scott[3] report 5 autopsies. Three showed ulcers which resembled those of dysentery more than those of typhoid fever. They say there was slight enlargement of Peyer's Patches and solitary follicles, also slight alterations in the mesenteric glands, fæcal necroses in the liver have been noted. Hoskins[4] in reporting an epidemic that occurred at Weyer's Cave, Va., says "there were few symptoms that would lead to the belief that there was any ulceration of the lower section of the bowel." He says further that there was soreness and tenderness on pressure showing that there was an inflammation, but the post mortem facts were lacking.

One gains the conclusions from the literature on the subject that there is an inflammation of Peyer's Patches solitary follicles and mesenteric glands, and if there is an ulceration present, it is not severe, as no case of perforation in paratyphoid fever has ever been reported. A few cases of hemorrhage have been reported though, showing ulceration is present at times.

Symptoms.—The incubation period varies from one to two weeks usually nine days.

Taking the clinical course of the disease it may be divided into two types: First, those cases resembling ptomain poisoning. The onset here is preceded by a few days of lassitude. but the initial symptoms are rapid and severe. There is a violent headache, vomiting prostration and severe pain in the abdomen which often requires morphine. The fever rises rapidly but subsides on the administration of calomel, and the disease then goes on without fever or at least with the temperature ranging from 99 to 100. All other symptoms appear as though it were typhoid—such as rose spots, enlarged spleen and rapid pulse with a feeling of weakness. Duration generally from 7 to 11 days. Second—The most common type is that which, as Osler says, cannot be distinguished clinically from typhoid. There is the pradromal set of symptoms, headache, nose bleed, lassitude, etc. The temperature may or may not rise by progressive steps. Headache is usually more intense. Constipation is more common than in typhoid. It seems to have an affinity for children—for instance in the 35 cases reported by Hoskins, only 6 occurred in adults. Another thing mentioned by Hoskins in his report was that there is a peculiar doughy feel to the abdomen and also what he termed day dreaming; he says the patients would lie with their eyes open, no delirium present, but were the victims of the most horrible illusions.

Decrotism is rare in paratyphoid fever.

Complications.—That paratyphoid fever is a mild disease is futher proved by the paucity of complications attendant. Never perforation and with hemorrhage a rarity, the two most dreaded complications are almost removed. Purulent arthritis and myositis are more common than in typhoid. Bronchitis is frequent.

Diagnosis.—This is made in the second type of the disease solely on the agglutination test. In the first type diagnosis depends on the onset resembling ptomain poisoning, fever, which disappears after the administration of calomel, and then the appearance of rose spots, gurgling in the right iliac fossa, enlarged spleen and the agglutination test.

Treatment.—This is the same as for typhoid fever.

Report of Case.—The case seen by me occurred in June, 1910. Patient was a school teacher; age about 25. Diarrhea, abdominal pain and fever were the initial symptoms with the prodromal symptoms of lassitude and anorexia preceding. Gurgling in the right iliac fossa, rose spots, enlarged spleen and fever appeared. The case was so typically typhoid that after two widals were negative, I decided to have an agglutination test with paratyphoid made. It was positive with the Beta strain of that bacillus. The febrile period lasted about 23 days, but after the first week it never went above 102.6 F. Recovery followed without any complications or sequelæ.

References:

1. Lancet 1907, 1—1571.
2. Journal A. M. A., Feb. 6, 1909.
3. Journal of Infectious Diseases, Jan. 1904.
4. Journal A. M. A., March, 19, 1910.

A Case of Myeloid Leukaemia.

By W. Allan, M. D., Charlotte, N. C.

On June 3, 1910, I was asked to see the following case with Dr. John S. Clifford, of Charlotte:

Case—white, male, Syrian, who had been in America for the past four years; no family history could be obtained. Past history—had typhoid in Syria in 1902, denies any history of syphilis, passed small, flat, white worms in Feb. 1910; has been feeling weak and sick with headache and dizziness for the past two months and has had a continuous low irregular temperature. Present condition; on June 2, complete paraplegia below the waist developed suddenly and the case was brought into the Mercy General Hospital.

Physical examination:—Patient lying helpless in bed with embarrassed respiration from a greatly distended abdomen; considerable loss of weight evident. Skin lax, pale, muddy, and dry; eyes, ears, nose, throat normal; tongue heavily coated and protruded to the right side. Chest normal; lungs clear; heart dulness and sounds normal. Abdomen immensely distended, obliterating all hepatic and splenic dulness; everywhere tympanitic and nowhere tender; no abdominal rigidity. Glands, genitals normal; extremities normal in appearance; all reflexes, all sensation, and voluntary motion abolished from one inch above the umbilicus down.

Enemas entirely failed to relieve the distension; the intestines were evidently paralyzed. There was retention of urine and feces. No hemorrhages under the skin or from the mucous membrane could be discovered.

Urine—(by catheter), acid, 1024, negative for sugar and albumen; microscopical degative.

Feces—the few hard flakes obtained by enema showed nothing.

Blood—haemoglobin – 25%; red blood count – 1,260,000; color index – 1; the reds showed poikilocytesis, micro– and macrocytes; normoblasts, micro– and macroblasts polychromatophilic degeneration and stippling; the nucleated reds were 6 to evero 100 whites or 2,256 per c.mm. White blood count – 37,600. Differential count—polymorphonuclear neutrophiles 36 %; small mononuclears 14%; neutrophilic myelocytes 50%; eosinophiles, eosinophilic myelocytes, large mononuclears, transitional cells, and mast cells, absent.

Death from inanition after nine days.

When the case was first seen the possibility of a cysticerus in the cord was considered, but the blood picture at once showed myeloid leukaemia, with the probability of a hemorrhage into the lower part of the thoracic cord. The atypical blood picture of myeloid leukaemia, and death following a paraplegia of sudden onset, make the case seem of sufficient interest to report.

Treatment of Cystitis.—Schlafli (Zeitschrift fur gynakolog.) reports the most efficient treatment to be energetic internal salicylic medication, coupled with diuretic stimulants, as tea and mineral waters. Complete repose in bed and regulation of defecation are of course essential.

The preparations of hexamethylenamine are much less efficient, and salol must be regarded as not free from danger, owing to the possibility of carbolic poisoning from the intestine; hence pure salicylic preparations have been resorted to. Acetylsalicylic acid is the most active of them; diplosal is very nearly as active and has the advantage of not giving rise to such strong perspiration and not irritating the stomach. On the other hand, it is not absorbed so quickly. Acetylsalicylic acid is therefore to be preferred when it is a question of very rapidly producing an effect; i. e., for headache. Unfortunately, it is not well tolerated by everybody; it occasionally cases gastralgia, even violent pains, though administered in lemonade, and it produces profuse sweating. Consequently, when very rapid action is not essential, diplosal was found preferable to acetylsalicylic acid in the treatment of cystitis.

Aluminum Acetate in the Treatment of Wounds.

Among other things used in the treatment of wounds, M. F. Waterhouse refers to the great usefulness of aluminum acetate solution. Burns are treated in his wards with dressings wetted with a 1-per-cent. solution of aluminum acetate, and for certain surgical purposes this is advocated as one of the best antiseptic solution, though it is unknown to most surgeons and practitioners. He states with assurance that the 1-per-cent solution of aluminum acetate is an admirable antiseptic which at the same time is non-toxic, non-irritant, and yet markedly astringent. It is not to be employed in surgical operations, as it spoils steel instruments; but as an antiseptic for moist fomentation of wounds that are infected or probably unclean, or as a medicament for a bath in which to place an infected hand or foot for cotinuous irrigation he recommends it strongly. It is used extensively upon the Continent instead of the comparatively weak boric acid solution so generally employed in England.

The common strength is that of 1 dram of the liquor aluminii acetatis of the German Pharmacopoeia (a 7½ per cent. solution) to 1 fluidounce of water. Experience shows that there is no danger of poisoning from it, even when a crushed arm or leg is bathed in the solution for a month, and it is stated with confidence that by the employment of continuous irrigation by means of a bath of the 1-per-cent. solution, pyogenically infected hands and feet, which but for the action of the solution would have dermatitis whatever its cause, for suppurating open wounds, and for cutaneous erysipelas, much is to be said for the favorable results obtained. There is one objection that may be mentioned, and that is that after three weeks continuous irrigation of a member such as the hand the surface tissues may assume a ligneous hardness, so that they can scarcely be cut .

Charlotte Medical Journal

Published Monthly.

EDWARD C. REGISTER, M. D., EDITOR

CHARLOTTE, N. C.

DIOXYDIAMIDOARSENOBENZOL.
[Otherwise Ehrlich's "606".]

If our readers have wondered at the apparent neglect on our part to editorially comment on Professor Ehrlich's wonderful discovery for the cure of syphilis since his announcement of it, the explanation of it is a simple one. Until we knew something definitely about it we did not wish to praise or condemn it to our readers thereby perhaps giving them a false idea of its virtues or its faults. Even now it is most difficult to write definitely about it. Like every new remedy it has its highly enthusiastic advocates who blinded by their good results, supposed or real, can see no ill effects from it or no contraindications for it. Again, there are its opponents, made so by jealousy, lack of results, general conservatism or other causes. Then there are those of us who with open mind free from prejudices "pro or con" await quietly our time when we can separate "the chaff from the corn" and draw definite conclusions. That has been and is our attitude up to the present. It is very certain that if any one except so famous and reliable a scientist as Professor Ehrlich is, had brought out a remedy for which so much is claimed the world at large would have scoffed at it from the beginning and it is doubtful if even decent clinical trial would have been accorded it. Just think of what is claimed for this wonderful remedy and you will agree that it seems almost impossible that it can be the truth. That it can positively cure syphilis no matter in what stage, by merely from one to three injections of this drug with the simple name of dioxydiamidoarsenobenzol. Of course the name ought to kill off anything and were it not for the fact that it is already commonly known as "arsenobenzol" and "Ehrlich's 606" a good many of us would have to put in some extra time learning to pronounce its official name and then memorizing it.

Our R-pads would also have to be widened to allow us to write for it. Clinical reports from the large German hospitals show that in the hands of those doctors it has proved equally effective in acquired or congenital syphilis. In fact some of the most brilliant results reported has been in nurslings. The curative action in this new and very important addition to our drug therapeutics is based on its destructive action on the spirochetes. This fact may lead to its being of specific use against other diseases caused by protozoan spilla. Meltzer of the Rockefeller Institute advocates this view in a very able editorial in favor of "606" in the October number of the New York State Journal of Medicine. The discovery of this remedy came about from a theory and it is interesting to note that the name "606" is not merely a fanciful one but came about through the fact that it was the sixth hundren and sixth syphilitic compound tried by Ehrlich and his associates to prove that theory, that finally did it. Up to the present time none of this drug has been put upon the market for purchase but it is now to be given to regular agents for distribution to all parts of the world. Therefore as the lay press has printed much about this discovery, you will soon be asked about it by your patients. Under these circumstances and because you should know all about, read every article you can get concerning it. Editorially we can give you but few details and mention only clinical reports generally.

The average dose given at each sitting is usually 0.3 to 0.4 gramme. In many cases this is all that is necessary. In some cases one to two repetitions seem necessary to complete the cure.

Wechselmann of Berlin who has been closly associated with Ehrlich in making the clinical tests of this cure advises the following method of procedure in the use of dioxydiamidoarsenobenzol. The dioxydiamidoarsenobenzol is dissolved by triturating in a mortæ in from 1 to 2 c.c. of a soda solution when by adding acetic acid in drops a fine yellow paste is precipitated. This precipitate is then made sterile and dissolved in from 1 to 2 c.c. of distilled water, and neutralized by the addition of 0.1 normal soda solution or one percent acetic acid, according to a very carefully ascertained reaction with litmouse paper. The absence of pain depends upon the exactness of this neutralization. The deposit is centrifugalized and the paste which has been deposited at the bottom of the glass is shaken up with a physiological sodium chloride solution. The preparation is then ready for injection. Wechselmann's favorite site of injection is subcutaneously below the shoulder blade. Surgical cleanliness should be observed at the site of injection which should after being made sterile be painted with tincture of iodine. The conditions in which the treatment should not be used have not yet been definitely worked out. Some observers claim there are none sush but this seems a somewhat exaggerated statement.

SANATORIA AND HOSPITALS IN NORTH CAROLINA.*

Until we study the statistics touching upon this subject, it is difficult for us to have an idea of how we have developed along the lines of sanatoria and hospitals in North Carolina.

Our aggressiveness and growth in this special line of work has been marvelously successful.

It is well enough for us to take the liberty to interchange the words sanatorium and hospital when dealing with this subject as we propose to do. because we have a large number of hospitals in the state that could appropriately adopt the name sanatorium. It is this class of institutions that we will mainly refer to.

To study the growth or the development from any standpoint, certainly from a statistical standpoint. it is necessary to divide the institutions intended for sick people in North Carolina, into four different classes.

First, the class of hospitals or sanatoria owned and controlled by individuals or stockholders.

The second class is owned by organizations, societies, etc. These institutions or the most of them have a benevolent feature.

The third class is owned by the State, or the different cities or counties, and are purely charity.

The fourth class is mainly composed of homes and asylums of various grades and kinds.

What we have to say will only have reference to the first two classes. It is difficult to separate the privately owned hospitals and sanatoria in the State, from those owned, or partly owned by churches, and other organizations.

In 1876 we did not have a hospital or sanatorium in the State that had attached to it an operating room, or one that any of us could have gone to in the event that we were sick, or that we could have sent any member of our family to to be operated on, or even have sent our servants to for treatment.

In 1877, we had one hospital in North Carolina. This was St. Peter's Hospital. located at Charlotte, with a capacity of five beds.

From 1877 until 1885, this was the only hospital in the State. During this year, however, three similar institutions were established. Within the next five years only one institution was built, and in 1895 we had only eight hospitals in the State. In 1900 we had sixteen hospitals or sanatoria. In 1905 we had twenty-eight hospitals, and in 1910 we have fifty-eight hospitals and sanatoria. These hospitals and sanatoria now have a capacity, collectively, of 1796 beds.

After the civil war, until the beginning of these statistics, the Insane Asylum at Raleigh and the Marine Hospital in Wilmington, were the only two institutions, aside from the County Homes in the different sections of the State, where sick people could be cared for in either public or private institutions.

It is our opinion that this is a wonderful development in hospital enterprises in this Southern State.

To estimate the value of the services of these various institutions to the State annually, is impossible of course. We will deal with this feature of the subject though, by asking these questions: Suppose one-half of the beds that we now have are occupied all the time: suppose one-half of these patients are pay cases, as we call them, and one-half of them are charity cases; what are we accomplishing from a financial standpoint, and what are we accomplishing from a charity standpoint?

We will suppose further that one-half of these pay patients are surgical and the other half medical. How would this compare from a surgical standpoint, with the situation in 1877 in North Carolina?

What became of these cases prior to the time of hospitals in this State, and before we had so many well equipped surgeons and properly arranged hospitals? Half of them evidently were not operated on at all when they needed it; the other half went to the large northern cities to have their work done.

We can only imagine if these patients were now annually leaving our State, and going north, what their railroad expenses would be and what our surgeons in North Carolina, in the way of fees, would be losing annually. Reckoning from a conservative standpoint, it is well enough for us to state, that the situation now is, much better for the people of North Carolina. They are protected from a very large and unnecessary expense, and gives them opportunities to have their professional work done at home where it is equal to that of any other section of the country.

We believe that 98 per cent. of the best element of the Medical profession of North Carolina is of the opinion, and would say frankly, that the hospital enterprises of this State have developed as fast as any other enterprises in it, and that it is accomplishing as much good as are similar institutions in any other section of the United States.

EHRLICH'S SPECIFIC FOR SYPHILIS.

Recent articles in The Lancet by J. O. R. McDonagh, F. R. C. S. Eng., on experiences with "606" are of interest in adding to our knowledge of this method of treating syphilis. For the past few years Ehrlich has entirely devoted his time to chemotherapy, with a view of discovering a drug which, on the one hand, would kill the organisms in protozoal diseases, and, on the other, be non-toxic in that dose which would bring about their complete destruction. Experiments were first carried out with trypanosomes, and after several thousands of chemical substances had been tried with a view of discovering whether fixation of the organisms was possible, it was found that those having this power fell into three groups:

(1) Arsenic and antimony:

(2) Azodyes—e. g., trypanrot, trypanblau, and trypanviolet; and

(3) Basic triphenylmethane dyes—e. g., parafuchsin, methylviolet, and pyronin.

Before atoxyl and arsacetin were put upon the market Ehrlich recognized that there would be a certain percentage of patients who would show some idiosyncrasy to these preparations, since there are some people who are naturally sensitive to arsenic. This was the greatest difficulty with which Ehrlich had to contend, but one which he easily overcame; the disastrous results which have been reported from the use of both atoxyl and arsacetin could have been avoided if Ehrlich's advice had been followed. Ehrlich has been blamed for allowing such dangerous drugs to be used by anyone, consequently there has been the very greatest difficulty, and rightly so, in obtaining any of the new preparation, which bids well to revolutionize the present treatmenf of syphilis.

When the action of a new drug is to be tested the patient must first and foremost be in bed, a pulse and temperature chart strictly kept, and every means taken to ascertain whether the patient has any complications, such as inflammation or degeneration of the liver and kidneys, and if, as in this case, when we are dealing with an arsenic preparation, whether he has previously had either an injection of the same or of some other organic arsenical compound, since a previous injection may make the patient more sensitive to the action of a second. To test for this oversensitiveness to arsenic either a conjunctival reaction after Calmette or a cutaneous reaction after von Pirquet should be undertaken with the drug in the strength it is intended to be used, and those giving a positive result regarded as unsuitable for the treatment.

Up to the present, thereapeutic treatment has been intermittent, that is, a drug recognized as a specific for a ceriain disease —mercury in syphilis—had to be given at regular intervals if the disease was to be cured. The new form of therapy, on the other hand, the Therapia magna sterilisans, is to kill the organisms in from one to two days and prevent any recurrences. This forms the basis of Ehrlich's aim, and his goal is said to be reached by a drug which goes by the name of dioxydiamidoarsenobenzol, or Ehrlich-Hata's preparation No. 606. It is in the form of a yellow powder hermetically sealed in glass phials, the dose ranging from 0.3 to 0.6 gramme; it is only stable as a bichloride; but since it must not be injected in the double salt form, it is converted into a mono-or a bi-sodium salt by the addition of sodium hydrate just before use, which, being unstable, must invariably be employed fresh. The injection can be used either intramuscularly or intravenously.

The best results of cure obtained are, naturally, when the disease is at its height, when the body is saturated, so to speak, with the specific organisms, since the formation of anti-bodies may play even a greater part in causing their complete dissolution than the direct destruction of a few, and in these very potent preparations the smallest dose possible many suffice. Mr. McDonagh found that a much bigger dose is required to heal an early chancre than to cure completely a case of extensive gummatous ulceration, for instance, in a congenital syphilitic; and believes that one is, therefore, justified in assuming that the cure is largely due to the amount of antitoxin formed.

The procedure of the modern chemotherapy, which has in innumerable animal experiments succeeded with one fell swoop in curing the severest of infections, is exactly analogous to that of surgery, which with one operation is capable of eradicating a disease; in both, the instruments employed carry with them some slight degree of danger. As Ehrlich aptly says, surgery owes her success not to the principle of primum ne noceas, but to primum ut profiteas, and when from animal experiments we are sure that a true cure has been obtained, surely it is better to run the slightest risk than to deprive all of its benefit. One has only to see cases of malignant syphilis going rapidly down hill, uninfluenced by mercury and developing phthisis, improve in a fortnight beyond recognition, practically saved from death, to realize what this means. As the surgeon can discriminate between those suitable for a certain operation and those not, so will those with whom "606" has

been entrusted be able to lay down definitely the indications and contra-indications for treatment.

EDITORIAL NEWS ITEMS.

First Annual Meeting of the Seventh Disrict Medical Society of North Carolina.

This society met in Charlotte, Deeember the 6th, 1910. It was well attended and the papers read were of great value and the discussions full and interesting. The following papers were read:

Some Remarks as to the Science of Medicine, and a Comparison of Ancient with Present-day Progress of the Same—Dr. C. M. Poole, President North Carolina Medical Society, Salisbury, N. C.

Clinical Phenomenon of Pellagra—Dr. J. W. Wallace, Concord, N. C.

One Complication of the Puerpera—Dr. Baxter Haynes, Cliffside, N. C.

Habit-forming Drugs, Their Results, and What Shall we do with the Problem—Dr. S. M. Crowell; Charlotte, N. C.

Pyelitis-Pyelo Cysto-Nephritis in Children—Dr. I. W. Faison, Charlotte, N. C.

Scarlet Fever and Its Sequelæ—Dr. W. C. Bostic, Forest City, N. C.

Raynaud's Disease, with Demonstration of Case—Dr. J. P. Monroe, Charlotte, N.C.

Tubal Dysmenorrhœa, Dr. C. M. Strong, Charlotte, N. C.

Gastric Ulcer in Children—Dr. W. O. Nisbet, Charlotte, N. C.

Post-operative Complications: A Review of One Thousand Operations—Dr. Henry Norris, Rutherfordton, N. C.

The Surgery of the Tonsils—Dr. J. P. Matheson, Charotte, N. C.

Nervous Reactions—Dr. L. N. Glenn, Gastonia, N. C.

Errors of Diagnosis, with Some Reasons Therefor—Dr. W. F. Mitchell, Shelby, N. C.

Empyæma of Gall Bladder with Rupture: Report of Case—Dr. L. A. Crowell, Lincolnton, N. C.

Amœba—By Dr. Wm. Allen, Charlotte, N. C.

Some Minor Gynecological Matters often Overlooked—Dr. J. Q. Myers, Charlotte, N. C.

The Physician's Responsibility in the Diagnosis and Treatment of Carcinoma of Uterus—Dr. John R. Irwin, Charlotte, N. C.

Sanitation—Dr. F. O. Hawley, Charlotte, N. C.

North Carolina's Duty in the World's Crusade against Tuberculosis—Dr. C. A. Julian, Thomasville, N. C.

Prevalence and Prevention of Hook-Worm Disease in North Carolina—Dr. Jno. A. Farrell, Raleigh, N. C.

The Need of Care in Amputation of the Uterine Cervix Report of two Cases of Subsequent Cancer—Dr. Harlan Shoemaker, Shelby, N. C.

The Nature of Malignant Tumors—Dr. Addison Brenizer, Charlotte, N. C.

Kidney Stone—Dr. R. L. Gibbon, Charlotte, N. C.

From 10 to 12 p. m., the visiting doctors were entertained at a smoker at the Manufacturers' Club, by the members of the Mecklenburg County Medical Society. The occasion was a very enjoyable one.

Special Southern Number.

The January issue of the American Journal of Surgery will be composed entirely of original contributions from the pens of well known Southern Surgeons. Among those to appear we would mention:

Pyuria—By Howard A. Kelly, M. D., Baliimore, Md.

Transfusion of the Blood, its Indication and Technic—By J. Shelton Horsley, M. D., Richmond, Va.

Tumors of the Lower Jaw, the Form Most Frequently Found in the Negro—By Willis F. Westmoreland, M. D., Atlanta, Ga.

Pylorospasm—By Stuart McGuire, M.D., Richmond, Va.

Prevention of Immediate Post-Operative Pain by Quinine Injections—By Drs. V. & V. W. Pleth, Seguin, Texas.

The Importance of Educating the Public in Regard to Cancer—By Southgate Leigh, M. D, Norfolk, Va.

Aerogenes Infections—By George R. White, M. D., Richmond, Va.

Stricture of the Rectum, Complicating Fistulæ—By C. S. Venable, M. D., San Antonia, Texas.

Gastric Symptoms from a Surgical Viewpoint—By Louis Frank, M. D., Louisville, Ky.

Dr. Edgar D. Capps, of Ft. Worth, Texas, and H. Berlin, M. D., of Chattanooga, Tenn., will also contribute original articles to this number.

Seaboard Medical Association Meeting.

The Fifteenth Session of the Seaboard Medical Association of Virginia and North Carolina was held in Kinston, N. C., on December 6, 7, and 8. The meeting was largely attended and a great many papers were read and very thorougly discussed.

Among the most important papers read were the following:

Functional Disorders of the Stomach—Dr. James H. Culpepper, Norfolk, Va.

Typhoid Fever—Prof. Thos. McCrae, Baltimore, Md.

The Value of the Microscope in General Practice—Dr. H. D. Walker, Elizabeth City, N. C.

Epidemiology, Symptoms and Treatment of Acute Poliomyelitis—Dr. Phillip Roy, 1200 Massachusetts Ave., Washington, D. C.

Neural Pathology, Neurological Symptoms and Treatment of Paralysis in Acute Poliomyelitis—Dr. Tom A. Williams, 1758 K St. N. W., Washington, D. C.

Amoebic Dysentery, with Report of a Case—Dr. T. L. Ginn, Goldsboro, N. C.

Rabies—Dr. T. E. Baird, Norfolk, Va.

Typhoid Fever—Dr. B. Burman, Va.

The Treatment of Pneumonia—Prof. J. H. Musser, Philadelphia, Pa.

The Report of a Doubtful Case, Possibly Hemorrhagic Fever—Dr. Thad O. Joyner, Severn, N. C.

Stockes-Adams Syndromes—Dr. T. C. Harris, Kenbridge, Va.

Some Things the Physician Should Know About Eye Disease—Dr. Jno. F. Woodward, Norfolk, Va.

Clinic—P. A. Surgeon Dr. Lavinder, U. S. Marine Hospital Service.

Some Practical Remarks on Diagnosis and treatment of the Common Forms of Fracture—Dr. A. K. Tayloe, Washington, N. C.

The Advantage of Tonselectomy and an Adeneosection in Children—Dr. S. R. Edwards, Goldsboro, N. C.

Pupillary Reaction in Health and in Disease—Dr. Charles W. Banner, Greensboro, N. C.

Cysts of the Liver—Dr. Buxton, Newport News, Va.

Endo-aneurysmorraphy—Case Report—Dr. Lomax Gwathmey, Norfolk, Va.

When and where to Amputate—Dr. R. B. Miller, Goldsboro, N. C.

Preventive Surgery—Dr. G. P. LaRoque, Richmond, Va.

Subacromial Bursiti—Dr. John E. Philips, Suffolk, Va.

Further Remarks on Abdominal Caesarean Section: Its Advantages in Complicated Obstetrics—Dr. D. T. Tayloe, Washington, N. C.

Posibilities of the Blood-Clot in Surgery Dr. Lucian Loftin, North Emporia, Va.

Status Lymphaticus—Dr. Clarence Porter Jones, Newport News, Va.

Adenoid Vegetations in the Rhino-Pharynx—Dr. H. W. Carter, Washington, N. C.

Duodenojejunostomy—Dr. P. St. L. Moncure, Norfolk, Va.

Some Important Points in Connection With Successful Surgical Work—Dr. Southgate Leigh, Norfolk, Va.

Surgical Treatment of Indigestion—Dr. J. E. Rawles, Norfolk, Va.

The Relation of the Physician to Public Health as Regards Tuberculosis—Dr. T. M. Jordan, Raleigh, N. C.

What it Costs—Dr. Ira M. Hardy, Washington, N. C.

Life Insurance Frauds—Dr. Albert Anderson, Raleigh, N. C.

Knolwedge of Pathology Necessary to Forecast Longevity—Dr. J. T. J. Battle, Greensboro, N. C.

Insurance Paper—Dr. J. P. Turner, Greensboro, N. C.

Paper on Psychiatry—Dr. John C. McCampbell, Morganton, N. C.

The Early Recognition of Mental Diseases and the Management of these Cases by the Family Physician—Dr. Isaac M. Taylor, Morganton, N. C.

The Need of a National Health Department—Dr. R. Mannon, Va.

Twenty-five Years in County Practice—Dr. Edmund Paulson Downing, Franktown, Va.

The District or County Medical Society and Its Benefit—Dr. R. Lee Seward, Isle of Wight, Va.

Relation of Pharmacology and Clinical Medicine—Prof. W. D. MacNider, Chapel Hill, N. C.

Early Diagnosis—the Value of in Diseases of Women—Dr. Frank H. Hancock, Norfolk, Va.

Diphtheria—Dr. E. J. Nixon, Petersburg, Va.

Bacterins and Serum Theraby—Dr. A. D. Parrott, Kinston, N. C.

Hyperdermic Treatment of Malaria—Dr. Geo. E. Kornegay, Kinston, N. C.

The officers of the associan are:

President—Dr. W. T. Parrott, Kinston, N. C.

First Vice-President—Dr. Joseph Grice

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Secretary—Dr. J. R. Parker, Goldsboro, N. C.

Treasurer—Dr. Israel Brown, Norfolk, Va.

Orator—Dr. J. H. Hiden, Pungoteague, Va.

Deaths.

Dr. Joel Hill, one of the best known physicians of Davidson county, N. C., died at his home in Lexington, on November 22d. In 1880 Dr. Hill graduated from the College of Physicians and Surgeons, Balti-

more, Md. He has been practicing his profession in Lexington since 1896. He was granted license to practice medicine in 1885, and joined the North Carolina Medical Association in 1886.

Dr. Thomas R. Little of Greensboro, N. C., died suddenly at his home, on November the 15th. Dr. Little was about thirty-five years of age. He graduated from the Medical Department of the University of Pennsylvania in 1900, and he has been very successful as a practitioner. He received his license to practice medicine in 1903, and joined the North Carolina Medical Association in the same year.

Dr. M. D. Kimbrough, of Mocksville, N. C., died on November 26th, after an illness of several months. He was seventy-two years of age, and had been a very prominent physician of his section of the State, for more than forty years.

Dr. Kimbrough joined the North Carolina Medical Association in 1904. He graduated from the University of Pennsylvania in 1860.

Dr. Landon B. Edwards, one of the most eminent physicians of Richmond, Va., died at his home in that city on November the 27th. He was sixty-five years of age, and was one of the very few surviving charter members of the Medical Society of Virginia of which organization he was secretary for many years. He was an ex-president of the Richmond Medical and Surgical Society, and the Association of Medical Editors, and American Publishers' Association.

Aside from the societies already mentioned, Dr. Edwards was a member of the following medical organizations: American Medical Association and Ninth International Medical Congress; Honorary member of the West Virginia Medical Society, and the Medical and Surgical Society of the District of Columbia.

He was one of the founders of the University College of Medicine, of Richmond, and was also the founder of the Virginia Medical Semi-Monthly, a medical journal which he continued to publish until his death.

Dr. Edwards received his medical education from the Medical College of Virginia and the University of New York City. He graduated from the last named college in 1867. His professional career has been marked with unusual success.

The Christmas Lippincott's

Most of the important magazines get out especially fine Christmas numbers, and Lippincott's is no exception to the rule. The complete novel for December is "There Was Once a Queen," by Edith Robinson, author of "A Mock Caliph and His Wife." It is a brisk and actionful story, with its scenes laid in a small German principality, the hero being in the diplomatic service there He falls in love shortly after his arrival, and is thereby led into some strange adventures. There is a decided mystery in the plot, and it is doubtful if the reader will be able to solve it prematurely; but there is no doubt whatever that the story will be thoroughly enjoyed.

BOOK NOTICES.

The Life of Martin Luther, by the Rev. Arthur C. McGiffert, in The Century for 1911.

The Century has selected the life of Martin Luther as one of its strongest features in 1911, because a knowledge of the work of Luther and of the Reformation and its effect on the modern religious thought is necessary to an understanding of today's religious problems. This life is not written from a theological viewpoint, but is vivid, dramatic and readable, worthy to rank with The Century's great biographies—Sloane's life of Napoleon, Nicolay and Hay's Lincoln. Wheeler's Alexander the Great, Morley's Oliver Cromwell. [To begin in December,]

W. B. Saunders Company now have going through their presses a three volume work on Practical Treatment, written by international authorities and edited by those able clinicians, Dr. John H. Musser and Dr. A. O. J. Kelly, both of the University of Pennsylvania.

In looking over the list of contributors we can come to but one conclusion;namely, that this work will undoubtedly take rank as the very best on Treatment extent. The names of the authors carry with them the positive assurance of thoroughness. Indeed, each chapter is a complete monograph, presenting the most recent therapeutic measures in a really practical way.

As the general practitioner is required to know certain therapeutic measures more or less of a surgical nature, leading surgeons have been selected to present such subjects. This is an important feature, and, to our knowledge, not included in any similar work.

In ever case the men have been most aptly chosen for their respective tasks, and under the wise editorship of Drs. Musser and Kelly there has been produced a work on Treatment that will remain for many years the last word, a source of practical information, easily obtained and readily digested.

The work will sell for $6.00 per volume, in sets only.

Fractures and their Treatment by J. Hogarth Prince, M. B.; (Ed.) and A. C. S., (Eng.) Glasgow. London: Henry Frowde, Holder & Stoughton, Oxford University Press, Warwick Square, E. C., 1910.

The author was induced to write this book, because no special work dealing with the subject of fractures has been published in his country for a long time. The book has certainly to a great extent, met with the writer's endeavor to give us, within as short compass as possible, an account of the mechanisms by which the various fractures are produced and of certain methods of treating these injuries. This work is not intended to be encyclopædic in either direction, so far as the mechanisms are concerned.

This book which is neatly bound, and with illustrations much above the ordinary, is one that should be in every physician's library; therefore it gives us great pleasure to recommend it to the medical profession.

Diagnosis of Syphilis, by George E. Malsbary. M. D., Professor of Medicine, Cincinnati Polyclinic and Post-Graduate School, Author of a "Text-book on the Practice of Medicine," and Monographs on Treatment of Tuberculosis," "The Rheumatisms," "The Septic Infections," "Meningitis," and "Cerebro-Spinal Meningitis" (in "Wood's Reference Handbook of Medical Science"), Member of the Academy of Cincinnati, the American Medical Association, the Cincinnati Obstetrical Society, etc. Cincinnati: Harvey Publishing Company, 1911.

In this book the subject of syphilis is considered from various standpoints. First, attention is paid to laboratory diagnosis, special stress being placed upon the methods of recognition of the spirachete pallida, and the technic and relative value of the Wassermann and other serum tests. Second, heredity syphilis has received ample consideration. Third, the acquired forms of syphilis is discussed in its various stages. Fourth, the syphilitic affections of the various organs has received detailed description. Fifth, there is appended an extensive recent bibliography bearing upon the subject. Every practicing physician is impressed with the great diagnostic importance of the recognition or syphilis, and therefore it gives us pleasure to recommend this volume to the profession as an aid in the diagnosis of this disease.

The book is beautifully bound and contains 422 pages of carefully indexed reading matter, and will not only be an attractive volume for any library, but also a valuable one.

Diagnosis and Treatment of Diseases of Women, by Harry Sturgeon Crossen, M. D., Professor of Clinical Gynecology, Washington University; Gynecologist to Washington University Hospital and Director of the Gynecological Clinic: Gynecologist to St. Mullanphy Hospital, to Missouri Baptist Sanitarium, to Bethesda Hospital, and to the St. Louis City Hospital; formerly Superintendent of the St. Louis Female Hospital; Fellow of the American Gynecological Society, of the American Association of Obstetricians and Gynecologists, and of the Western Surgical and Gynecological Association; Ex.President of the St. Louis Obstetrical and Gynecological Society. Member of the American Medical Association, Missouri State Medical Association, St. Louis Medical Society, etc. Second Edition, Revised and enlarged with seven hundred and forty-four engravings. St. Louis, Mo., C. V. Mosby Co., 1910.

The author's endeavor has been to present clearly and in detail the foundation facts and principles of gynecology, and we believe he has accomplished this in this, the second edition of Diseases of Women.

Two hundred pages of text and fifty original illustrations have been added in this volume, and special attention has been given to the presentation of pelvic inflammation and of tubal pregnancy—two live and important subjects, upon each of which an enormous mass of valuable information has been accumulated.

This volume, like the first edition, is neatly bound, well constructed and very carefully indexed. The illustrations are above the ordinary, and it gives us a great deal of pleasure to recommend this book especially to practitioners and teachers.

A Handbook of the Surgery of Children, by E. Kirmisson, Professor of the University of Paris, Surgeon to the Hospital for Sick Children, etc. Translated by J. Keogh Murphy, M. C. (Cantab.) F. R. C. S. Surgeon, Miller General Hospital for Southeast London; Senior Assistant Surgeon Paddington Green Children's Hospital. Henry Frowde, Oxford University Press; Hodder and Stoughton, Warwick Square, E. C., 1910.

In this volume, it has not been the author's aim to put in as small a space as possible the history, pathological anatomy, symptoms, diagnosis aetiology and pathogeny, but he has made space for the discussion of the most essential features touching upon the Surgery of Children, which he believes to be symptoms, diagnosis and

treatment. These features he discusses at length, and the information contained in this volume is of real value to both the medical profession, and to the medical student.

The illustrations contained in this book are numerous, and of an extraordinary type The book, consisting of 822 pages of reading matter, is attractively bound, carefully indexed, and will be a valuable addition to any medical library.

The Prevention of Sexual Diseases, by Victor G. Veckl. M. D., Ex-President San Francisco, German Medical Society, Member American Urological Association, American Medical Association. California State Medical Society, etc., with introductron by William J. Rolinson, M. D. The Critic and Guide Co., 12 Mt. Morris Park, West, New York, 1910.

The author makes this statement in his *Preface:* To write on the prevention of sexual diseases is surely a venturesome undertaking; treating the subject without the customary affection and hypocritical rolling of the eyes will probably be condemned by some, will perhaps be called ugly names. If you do not like the plain truth, or if it hurts you to have the plain truth told in your presence, drop this volume at once; it is not written for you, though its perusal might do you good."

This preface is a true index to this little volume, becanse the author discusses in very plain language all the sexual diseases from their origin.

The seventh chapter, which is devoted entirely to the subject "The Physician's Duty Towards Prevention of Sexual Diseases," is very interesting and valuable, and we feel sure it would be worth while for every physician to study it.

The volume is small, containing only 132 pages of reading matter, yet we consider it a valuable addition to medical literature.

Psyche, a Concise and Easily Comprehensive Treatise on the Elements of Psychology and Psychiatry, for Students of Medicine and Law, by Dr. Max Tamley,

It gives us great pleasure to announce the appearance of this treatise which will be a source of gratification to those interested in mental disease and seeking information on the subject. This book will enable them to acquire an adequate knowledge of insanity without long, arduous study, For, though thoroughly scientific in scope and method, the treatise presents the complicated subject of psychiatry so simply and clearly that it will cause no more mental effort to the medical reader ha n a work of fiction, and will be comprehended even by educated laymen, as attorneys, pedagogues, etc., to whom an acquaintance with disorders and defects of the mind is very useful.

The work is comparatively short, yet so comprehensive as to form a complete textbook of psychiatry with an excellent introduction to the elements of psychology. The following brief excerpt from the large table of contents will give an intimation of the comprehensiveness and the appropriate arrangement of the work. The book consists of five parts:

I. Psychology or Physiology of the Mental Functions.

II. General Pathology of the Mental Functions.

III. Etiology of Insanity.

IV. Prognosis and Therapy of the Psychoses.

V. Special Pathology of Insanity.

An extensive and accurate index facilitates the reading considerably.

Particularly illuminating, and to a great extent original, are the explanations of the fundamental conceptions of the subjects. Special attention is called to the chapters on sensations, sense impressions, feelings, morbid, mood, hallucinations, delusions, compulsory ideas, idiocy and defective children, recurrent insanity (manic-depressive insanity), etc.

Attractiveness and simplicity of style and many examples, taken from every-day life, to illustrate difficult points, contribute to make the book very interesting and to afford great pleasure to the reader.

Orders will be promptly filled upon receipt of the price, $2.50 (net) per copy.

The Medico-Publishing Company, 55 W. 126th Street, New York City.

Modern Treatment; The Management of Disease with Medicinal and Non-Medicinal Remedies. By Eminent American and English Authorities. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica, Jefferson Medical College, Philadelphia; Physician to the Jefferson Hospital; Author of "A Text-book of Practical Therapeutics;" "A Text-book of the Practice of Medicine," etc. In two very handsome octavo volumes, comprising 1800 pages, with numerous engravings and full-page plates. Price per volume in cloth, $6.00, net; half morocco, $7.50. net. Lea & Febiger, Publishers, Philadelphia and New York, 1910.

The decade just closing is notable for the intensity and fruitfulness with which scientific methods of investigation have been brought to bear upon all the basic departments of medicine. The very secrets of

Nature have been penetrated, and her own modes of combatting disease have been discovered. It follows that the apex of the pyramid of medical knowledge, namely the application of it, has been elevated to a far higher level than ever before, as well as made secure in its foundations. The time is therefore opportune for a special work on Treatment, written by the highest authorities and so clear and direct that physicians who are not so situated that they can keep abreast of the stream of new knowledge proceeding from the world's laboratory and research workers, may, nevertheless, have the results at command in a shape for immediate application in practice. Such is the object accomplished in this entirely new work. Dr. Hare has known how to plan it and where to find the best man for each subject. The field covered is inclusive of all methods of treating disease. The first volume opens with general sections on modern pharmacology and its bearing on practical therapeutics, prescription writing, and the best modes of combining drugs, as well as cautionary instructions for avoiding untoward effects. Ample space is then given to the immensely important subject of treatment with non-medicinal agents: climate, exercise, mineral waters, baths, electricity, x-rays, radio-active substance, rest, diet and foods, and hygienic measures. The distinctively modern departments of serum therapy, vaccines and opsonic therapy, and the use of tuberculin are presented in their latest development, with special reference to practical application. The volume closes with a large section covering the treatment of all the infectious diseases. The second volume, which is soon to appear, will complete the work by presenting the treatment of parasitic, circulatory, digestive and respiratory diseases, nutritional and diathetic diseases, those of the nervous system and genito-urinary apparatus, and of the skin, eye and ear.

The incomparable value of this standard work to every practitioner is manifest when it is considered that it is exclusively devoted to treatment, is written by the highest authorities, and is entirely and equally fresh throughout, and complete abreast with the most advanced knowledge.

Abstracts of the Leading articles of the month.

Surgical Transplantation in the Human Subject.—Tuffier (Bull. et mem. de la Soc. de Chir) gives the results of his experience of transplantation of tissues, membranes, and organs in the treatment of certain surgical affections in man. The report deals exclusively with grafts taken from the patient or from another human subject. Previous experiments had proved, the author states, the therapeutical inefficacy of transplantation from animals to man. Reference is made to two cases to prove that the good results obtained by the auto-transplantation of large skin flaps are not of mere temporary duration. In both cases —one of perineo scrotal hyposadias, the other of absence of the vaginal canal and the neck of the uterus, in which the refection of mucous canals by large rolled-up flaps of skin from the thigh, remained quite sound after intervals in the respective instances of four-and-a-half and five years. Much success in regard to both immediate and remote results has also been attained in the author's practice by the transplantation of osteo cartilaginous and exclusively cartilagionous grafts of the refection of articular surfaces after insection. In the year 1901 he grafted the articular surface of the head of the humerus on the extremity of the diaphysis after resection of the two tuberosities and the intermediate portion of bone. An excellent functional result was obtained, which after an interval of twenty months was still more decided. Many other successful cases of this kind have been put on record by different surgeons, and it has been recently proposed to transplant a complete joint. In the treatment of large osseous defects the auto-transplantation of masses of subcutaneous cellular tissue is preferable, the author holds, to metallic stopping, as the living tissue, when it has been successfully grafted, is capable of defending itself against infection, and has not dangerous passivity of an inorganic body. Attempts made to relieve the subjects of myxœdema by inserting beneath the skin of the thorax and abdomen small portions of the human thyroid have not, it is reported, been very satisfactory, as the results of such treatment, though for a time decidedly encouraging, did not persist. The author in his researches on the transplantation of entire organs has paid special attention to the ovary. This organ he has often grafted into the broad ligament and into subcutaneous cellular tissue of the abdomen either immediately after its removal from another woman or after cold storage for periods of from two to ten days. It is certain, he says, that after immediate transplantation not only will the grafted organ retain its vitality, but that the ovarian parenchyma may become the seat of biological phenomena exactly resembling what occurs at the period of menstruation. In the concluding portion of the paper reference is made to a case of old urethral stricture with induration of the perineum and se v

eral fistulæ, in which the constricted portion of the urethra was refected and a free urinary outlet supplied by transplantation of a portion of a varicose saphena vein.—Brit. Med. Jour.

Diagnosis of Pancreatic Disease.—Klieneberger (Med. Klin) urges the importance of eariy differentiation of disturbances in pancreas functioning. In the first place the urine must be examined repeatedly for sugar; especially the tolerance of carbohydrates should be tested after a test dose of 100 gm. glucose. The stool should be examined for muscle fibers and fat; it may also be useful to test whether the general condition improves materially under ingestion of pancreatic ferment. Further aids in differentiation are the Sahli and Schmidt tests and examination of the stool with the casein method for the presence of a tryptic ferment. The Sahli test is the ingestion of a capsule, made of gelatin hardened in formalin, which is supposed to be dissolved only by the pancreatic juice in the intestine. The capsule is filled with iodin or methylene blue or salicylic acid, refound in the saliva or the urine. The Schmidt muscle-nucleus test is the ingestion of cubes of meat tied up in a little bag of gauze. The absence of the digestion of the nuclei in the muscle fibers in the bag speaks for deficient pancreatic digestion. The casein test for trypsin is simple and exact: 10 cc. of the filtrate of the stool previously diluted with 3 parts of a 1 per thousand soda solution is mixed with 100 cc. of a 0.5 per thousand solution of casein. The mixture is kept at 37° C. (98.6 F.) and examined from time to time for the presence of caseose by testing a portion with 1 per cent. acetic acid. The other tests for pancreas functioning, the Cammidge reaction, etc., are scarcely to be recommended to the general practitioner.

Treatment of Syphilis With Dioxy-diamido-arsenobenzol.—Wechselmann considers critically the so-called preparation No. 606, the result of a long series of experiments conducted by Ehrlich for the discovery of a specific chemical treatment for the organism and virus of syphilis. In November, 1909, Ehrlich announced that a single appropriate does of this substance had in 24 hours freed from spirochetes and induced rapid heal in a primary syphilitic lesion in a rabbit. The questions which Wechselmann states for solution with regard to the new preparation are: (1) Is it specific for syphilis, and if so does it excel means already known? (2) Does it cure syphilis? (3) Is the possible risk of the substance in proportion to the greatness of its action? With regard to the first point, even under the most sceptical judgment there can no longer be any doubt that the new preparatiod acts on the symptoms of syphilis in all its infectious forms with a rapidity and thoroughness such as is not even approached by any treatment at present knowk. In 80 cases treated by Wechselmann the results were obtained with the certainty of an experiment. A patient with about 20 roseolatous spots on the trunk and an erosive chancre on the penis was injected at 2:30 p. m. By 7:30 p. m. almost all the roseolae had disappeared, and by the next morning the chancre was clean and almost without induration. A young man had a deeply destructive primary lesion of the lower lip, the size of a dollar, with a maxillary bubo the size of a goose egg. Inunction produced but slight effect. On May 20th he was given 0.4 c. c. of No. 606 intramuscularly. On June 2nd the sore was level with the skin, of the size of a nickel, and the glands quite small. On June 8th healing was almost complete. A man of 23 years had his primary lesion seven months ago, and eruption followed four weeks later. For nearly four months he was treated by injections. For three months has had pains in both knee joints. Seven weeks ago he came to the clinic, looking like a skeleton, his skin the color of a corpse, the head like that of a dead person. His whole face and body were spotted with encrusted ulcers, the size of a nickel or larger, and with scar. There was a foul stench from the nose, in which the septum was perforated and the left inferior turbinate and the vomer were sloughing. Extensive ulcers in the nasopharynx, the pain from which made swallowing impossible. Pulse very small and of poor tension, rate 120 or more. Iodipin injections led to no improvement, and as a fatal result seemed imminent, an injection of No. 606 was made. After two or three days there was already a marked improvement in the general condition. In five days healing was evidently setting in all over the body surface. In nine days ulcers were all healed or nearly so. The diseased bony tissue of the nose had been completely thrown off, and fetor was gone. In seventeen days the patient's weight increased 15 pounds. The author records further cases showing the successful treatment of visceral syphilis, of cases which had for years resisted the ordinary lines of treatment, and of a case of malignant syphilis. He states that in a number of cases the dose used was below that advocated by Ehrlich, and refers to the emphatic statement of the latter that it is important in any disease caused by trypanosomes or spirilla to use an effective initial dose.

Wechselmann's assistant Lange has twice weekly made the Wassermann test on all patients treated with No. 606, and reports the disappearance of the reaction on such cases as had been long enough under observation. The disappearance of the reaction is, however a somewhat lengthy process. Tuberculous, pregnant, and nephritic cases have borne the treatment well. Optic disturbances, such as have been reported in regard to other arsenic derivatives, appear to be absent.—Berl. Klin Woch.

Cataphoretic Treatment of Sciatica.—Wullyamos says that at the beginning of the treatment the patient takes a hot bath of half an hour's duration in order to rid the pores of any fatty matter they may contain, as this offers a strong resistance to the passage of the ions. The electrodes are large plates of lead, trapezoidal in shape, covered with absorbent material. The cathode is charged with a solution of sodium salicylate to 3 per cent as hot as possible—about 120° F.—the speed and number of ions being proportional to temperature. The patient lies upon the cathode, and the anode is applied to the abdomen, thigh, and leg. The duration of the treatment is from sixty to ninty minutes, and at the beginning of treatment they take place every two or three days. The intensity of the current generally reaches 200 milliamperes. If a patient feels a burn, a layer of caoutchouc is placed between the skin and the electrode at that point. The number of treatments varies between one and fifteen. Remarkable results are said to have been obtained by the treatment and some cures have been effected after the patients had taken long but ineffectual courses of thermal baths.—British Medical Journal.

Acute Anterior Poliomyelitis.—Green gives details of two fatal cases of this disease during an epidemic at Bendigo. In a boy, aged five years, the disease commenced with symptoms of intense meningitis; after the fall of temperature there was gradual extension of paralysis involving the intercostal muscles. In a baby aged six months there occurred in the seventh day dulness of the right lung with tubular sounds of the upper third, indicating either an invasion by the same organism or a secondary infection. Death occurred on the day following the lung infection. In this case there was a gradual extension of the paralysis after the disease appeared to be at an end.

Bacteriological examinationof the cerebrospinal fluid—four specimens of the cerebrospinal fluid were obtained from this case. When with drawn the fluid looked quite clear, but, after standing a little while, grayish sediment collected which, on microscopical examination, proved to consist of lymphocytes. After centrifugalizing the fluid, a further examination showed that these deposits consisted entirely of mononclear cells, and that there were no polymorphonuclear leucocytes to be seen, and, in this respect, the writers point out that their results resemble those obtained by Geirsvold in twelve cases taken from an epidemic of acute poliomyelitis which occurred in Norway in 1905.

In most of the cover-glass preparations, made from the two earlier specimens of fluid, a few widely scattered diplococci could be distinguished. In a few instances two pairs were grouped as tetrads. There was some indication of a capsule, but this was not so distinct as it was with the diplococci which were found in the cerebrospinal fluid of rabbits.

The diplococci were always found free in the fluid; no intracellular forms occurred No culture of this diplococcus on artificial media could be obtained; media of every description were inoculated with the fluid, and incubated both aerobically and anaerobically, but in no instance was growth of any kind obtained.

Rabbits were inoculated intracranially with the fluid, and, in the three instances, the diplococcus was found in the cerebrospinal fluid on the 22d, 50th and 53d days after injection, and, in two of these instances, the rabbits became partially paralyzed on the 52d and 54th days after inoculation. Unfortunately no complete histological examination of the cords of these paralyzed rabbits was made.

In summing up the evidence concerning the infective nature of acute poliomyelitis, these authors consider that Geirsvold's investigations show that a specific disease exists, of which acute poliomyelitis is a frequent and prominent, though not essential, feature, and they consider that the instance they have recorded represents a sporadic case of the disease of which Gersvold observed an epidemic.—British Journal of Child-Disease.

Acetonuria in Infectious Diseases.—Harris in the London Medical Journal says that it has hitherto been considered that acetone appears in the urine in all fevers, and that it has therefore no great clinical importance. The Dr. found, however, from an examination of the urines of patients in the Isolation Hospital at Southampton that, although this substance was present in most of the cases of scarlet fever and diphtheria which were admitted, as regards enteric fever it was found only in

about a third of the cases. The author made the interesting observation that acetonuria occurred in many cases of diptheria in which no rise of temperature had been noted; he therefore suggests that some other factor than simple pyrexia must have been concerhed. The Dr. is of opinion that the presence or absence of acetonuria has some clinical value as a symptom. since it was much mcre constantly present in diphtheria and scarlet fever than in cases of ordinary sore throat, and thus its detection might be of assistance in diffierential diagnosis. Formerly it was believed that an abundance of nitrogenous food tended to its production, and some authors maintained that it arose from decomposition of proteids both of the body and of those taken as food. More recently, however, it has been shown that the essential factor in causing acetonuria is the absence of proper carbohydrate metabolism. Deprivation of food or the exclusion of carbohydrates from the food causes acetonuria without exception in the case of man. The facts also yield material necessary for the formation of acetone bodies.

Medical Education iu the United States and Canada.

A Report of the Carnegie Foundatiou for the Advancement of Teaching. By Abraham Flexner. With an Introduction by Henry S. Pritchett. Bulletin No. 4, New York.

There is probably no line of human endeavor which cannot be bettered by careful and thorough investigation, particularly if this investigation is carried out by those who have a purely academic interest in the questions involved. Investigation often leads to reform and like reform often leads to some erroneous conclusions, which, however, are more than counterbalanced as a rule by the benefits which accrue. It is also a well-known characteristic of the human mind to consider that that pursuit in life which one is himself following does not need investigation, which perhaps accounts for the fact that many Carnegie dollars are being spent in the investigation of medical education' and, so far as we know, are not being dissipated for the purposes of determining the rights and wrongs of the steel industry.

So much has been said in the daily papers concerning this Report of the Carnegie Foundation that its objects are doubtless familiar to many of our readers. Without question this is the most exhaustive report that has ever been made upon medical education in this country and possibly in any other country; and while it is tinctured somewhat with the spirit of the Crusader, it nevertheless contains an immense amount of valuable information, and its general effect without doubt will be distinctly advantageous. The opening chapters deal with matiers historical and general with the proper basis of medical education. In the second chapter, however, we note that much emphasis is laid upon the fact that certain men occupying high teaching positions are responsible for the publication of a number of quiz-compends or other short roads to learning which the Report sees fit to condemn. While this is, in one sense, a true statement of fact—that is, as to the responsibility of the authors for the compilation of these books—it is only proper to point out that in almost every instance these books were prepared many years before the authors reached any degree of professional eminence, and at a time when they were teaching in an elementary fashion as quiz-masters. They have not prepared these manuals as indicative of their opinion of what text-books should be provided for the undergraduate.

In the third chapter we find amongst other things a consideration of the requirements which should be enforced concerning the preliminary education of students who are about to undertake medical study, with an indorsement of the view that a knowledge of French and German is essential. We are in hearty accord with the idea that a man should adequately prepared for the study of medicine, but we have always held that the requirement that a physician have a reading knowledge of French and German is a mistake, because it is not essential for the qualification of a competent practitioner that he should have this type of learning.

All knowledge is advantageous, and any form of mental training which a man may have is beneficial, but as there are only a certain number of years for student work, we think it may be safely asserted that there are many other subjects which will train the mind equally well, and which will be of more assistance to the medical man than modern languages; the more so as the medical literature of the day provides the physician with information in English as to the progress of medicine in all foreign countries. then, too, it not infrequently happens in this country, because of its cosmopolitan population, that men who are descended from German, Italian, Russian; or French immigrants have more than a reading knowledge of one or two modern languages, but this knowledge has not been gained by study, and in no way indicates that the man has a trained mind. In other words, the requirement as a gauge of training is in many instances fictitious.

Under the discussion of those branches

of medicine which are taught in the laboratory, the statement is made that those schools which live on their fees do not present adequate laboratory facilities, and the specific statement is made that the strongest of these schools, the Jefferson Medical College and Northwestern Universitp, can at best develop highly a department or two, the rest being necessarily restricted. In the case of the Jefferson College this is entirely untrue, every laboratory connected with this institution being equally well cared for and developed to the extent that is best for the equipment of the medical student. We do not know whether similar conditions exist in other schools of this class, but it is so in this particular instance, and furthermore, as much of the teaching at the Jefferson College is done in its hospital, which is an endowed institution, the statement as to the teaching being entirely dependent upon the receipts from fees is erroneous. Perhaps another part of the Report was written at a comparetively early date, but the statement that the Jefferson College must accumulate a fund to retire a large mortgage is incorrect, the mortgage having been retired some time since, leaving free these funds for additional teaching facilities.

The chapter which is devoted to a consideration of State Boards of Medical Examiners contains much that is most commendable. The difference in the requirements of these boards at the present time, the questions which are asked in their examinations, and the methods by which the examinations are held, require in many instances much correction. The establishment of some uniform and proper standard of examination is most desirable.

As an illustration of the futility of classifying schools upon the results of a fleeting inspection or upon a basis of their annual catalogue is seen in the recent publication of a list of so-called high-standard colleges in the United States. In this list are to be found a number of institutions almost unknown which certainly do not require of their students the conditions named in their circulars, the teaching staff of which is almost unkown to the profession in general, and the equipment of which is without doubt imperfect. In some instances these so-called "high-standard" are situated in such small cities that ample clinical facilities are quite impossible. In one, for example, the total annual budget is less than $13,000, the receipts from students less than $10,000, and the amount of money available for the instruction of each student is less than $100. Another "high-standard" institution is situated in a town of about 1000 inhabitanis. It has less than 10 students and its total annual income from fees is less than $700!

What the medical profession demands, and what the public requires, to-day is the preparation of men well qualified to practice bedside medicine and surgery, who know enough to be safe practitioners, who have enough ambition to keep themselves up with the advances in modern medicine, and who are so well trained that they will make no more mistakes than human fallibility permits. Publications of this or any other kind which serve to increase interest and call attention to existing faults are to be cordially welcomed.—The Therapeutic Gazette.

Vasomotor and Trophic Changes ot Cerebral Origin.

Under the above heading Indelrans (L'Echo medical,) gives an account of the different circulatory and trophic changes seen in cases of paralysis of cerebral origin. In hemiplegias due to apoplexy the hand and foot often show a violet-red colouration, which disappears on pressure, leaving the skin a livid white colour. Frequently there is also œdema around the ankle and of the hand. This œdema may be permanent, in which case the limb becomes hard and violet coloured. The badly nourished skin is an easy prey to outside infections, resulting not infrequently in boils, sloughs, or gangrene. Trophic changes also occur in the nails. These lesions occur usually some time after the paralysis is established.

Ingelrans describes a case of left-sided hemiplegia due to apoplexy where, the day after the onset, the left hand and lower part of arm became greatly swollen, the skin became red as in erysipelas, and a few days later, on the left hand, a pemphigoid eruption appeared, with hæmorrhages under the nails. Over the thenar eminence there was a bleb as large as a hen's egg. It ruptured, and was seen to contain a yellowish serous fluid. On the back of the fingers were two similar blebs, and on the back of the hand several smaller blisters. Over the left trochanter was a large oval slough. The writer cites several similar cases previously published.

Pruss has shown that there exist in the corpus striatum vaso-constrictor centres, and in tee optic thalamus vaso-dilator centres, and Partion was struck by the almost constant presence of a lesion in the corpus striatum in cases where there was marked œdema, hæmorrhages, or pemphigoid eruptions in cases of hemiplegia. It has been shown that the destruction of the cerebral cortex in the dog is followed not only by a motor paralysis, but also by a vasomotor paralysis corresponding to the area destroy-

ed, and leading to a rise of temperature in the limb due to an engorgement of the paralysed blood-vessels, Stimulation of the cortex of the brain also leads to a contraction of the vessels of the part supplied. It is well known that the chief vasomotor centre is found in the medulla, but these may be connected with the cerebral cortex. In the case described by the author there was no cause for the skin charges except the cerebral hæmorrhage, but he points out that such cdanges are much more frequent where, in addition to the brain lesion, there is also a cardiac or renal lesion as well. In the latter cases both conditions contribute to the change in the skin. He concludes, from a study of his own and the reported cases, that in hemiplegia, where there are rapid vasomotor and trophic lesions in the skin, such lesions are due to interference with vasomotor centres in the brain itself, which are intimately connected with the vasomotor centre in the cord.—Edenburgh Medical Journal.

Difficulties in Bacterioscopy.—Fischer, (Jour. the Royal Inst. Public Health) mentions an extremely interesting method, which will certainly find its way into all bacteriological laboratories, is as follows: With a large platinum loop, 4 drops of fluid Indian ink are placed on a slide. Into the first drop a very small amount of the material under investigation is brought and mixed. Then with a small platinum loop a little is brought from the first drop into the second, from this second drop after mixture into the third, and from this third drop after mixture into the fourth. From the third and fourth drop material is taken up by means of an etching pen and laid as fine points in series on the surface of a gelatlne plate. Then these points are all covered by cover-glasses and examined with the oil-immersion. (If one sees it for the first time one is amazed at the easiness, clearness, and certainty with which the presence of only one individual bacterial cell or spirochete can be recognized.) Such points are then marked on the back of the plate with ink and the plate set in the incubator. After the colonies have grown those marked can be removed with a platinum needle, and one has then with absolute certainty a pure culture (originating from one cell). Naturally all material (slides, cover-glasses, etc.) must be perfectly sterile.

Syphilis and Aortic Insufficiency.

In a series of twenty-two cases of aortic insufficiency (clinical diagnosis only), in which the Wassermann and Bauer-Hecht reactions were performed, seventeen cases, or 77 per cent., gave positive results. Almost none of the patients who showed a positive reaction remembered having had infectious diseases and most of them likewise denied having acquired syphilis. The negative caaes were all below twenty years of age and each gave a history of former repeated rheumatic attacks. The investigators are of the opinion that syphilis is a factor in the pathogenesis of a large proportion of aortic insufficiency, and recommend that the Wassermann reaction be regularly tried in the latter condition, in order that specific treatment may be promptly begun when required.—Buckner and Galasesco, Bulletin Medical.

Carcinoma of the Stomach with Metastases in the Bone Marrow.

The occurrence of cancer metastases in the bone-marrow is followed in most instances by the appearanee of large numbers of erythroblasts and myelocytes in the blood usually associated with a high color index and megalocytosis. Where there is reason to suspect the constant presence of large numbers of erythroblasts and myelocytes in the blood, with megalocytosis and a high color index, should suggest bone metastases.

The presence of bone pains favors the diagnosis, but the greatest importance is attached to the condition of the blood. The blood picture is due to the stimulation of the bone-marrow by the metastatic tumors. The manner in which they act cannot at present be determined. Probably both defective hæmogenesis and increased hæmolysis take part in the production of the anæmia. Harrington and Teacher, Glasgow Medical Journal.

The Pathogenesis of Tetany in Childhood.

Pexa found that dogs fed on a calcium free diet presented a clinical picture in which the most conspicuous symptom was a passive condition toward external influences. There was no increased electrical irritability in the peripheral nervous system. The calcium content in the central nervous system was diminished, but there was an abundant increase in the amount of glycogen contained in the parathyroids, which were otherwise unchanged. It is concluded that the origin of tetany and spasmophelia can not be attributed alone to a deficiency of a calcium in the various organs, which deficiency is not associated with a diminution of electrical irritability in the peripheral nervous tissues plays a role in tetany, at any rate the latter would be prevented by the antitoxic power of the parathyroids.—Archiv fur Kinkerheilkunde.

Gonococci Arthritis.—Murrell, in the Edinburgh Medical Journal says, that a difficulty often experienced in diagnosticating between different forms of infective arthritis. If an arthritis follows specific urethritis the probabilities are that it is a gonococcic arthritis, and, similarly, if it follows an acute lobar pneumonia, it is probably pneumococcic. But often enough the preceding history affords us little guidance In some varieties of arthritis, the rheumatoid for example, although there is much pain there is little effusion. Even when there is considerable effusion of fluid obtained by aspiration may be sterile, showing no microorganisms in the films and no growth on cultivation. A more annoying condition is when many different organisms are found but nothing characteristic. Individual cases often present difficulties in the matter of diagnosis. A bacteriological examination may throw some light on the subject, but often there is nothing to examine. It is conceivable that the man may have an acute attack of gout with a superadded gonococci-arthritis. As to the distinctive diagnosis between gonorrheal and muscular rheumatism, he says that in the gonococcic variety the plantar fasciæ are commonly involved, and the patient complains of pain in the head. The erector spinæ muscles may be attacked, may be pain referred to the region of the diaphragm, a condition not met with in the muscular form in which the fasciæ of the neck more often suffer. The doctor states that he has lately treated a considerable number of cases of gonococcic arthritis with an antigonococcic serum. The doctor has usually given a series of 25 c.c. spread over a period of twenty-four hours; for example, 10 c.c. at 10 a. m., 5 c. c. in the evening, and 10 c. c. the following morning. In some cases, although not in all, there has been a reaction indicated by a rise in temperature of a couple of degrees, with slight constitutional disturbance and increased pains in the joints. Sometimes there has been a serum rash, usually an erythema or an urticaria, but it has been transitory. The Doctor's impression was that the serum was useful, as there were many cases of apparent success, but subsequently he met with a still larger number of cases in which it was a distinct failure, and has now come to the conclusion that an antigonococcic serum is of little or no therapeutical value. Of the gonococcic vaccine he observes that autogenous vaccines are superior. In acute gonorrhœa vaccine treatment is not devoid of danger, and requires caution. In chronic gonorrhœa, where there is usually a mixed infection, the most satisfactory results are obtained when the gonococcus is the sole infecting organism. In gonococcic iritis the symptoms are relieved in from three to four days, a result which is satisfactory, having regard to the obstinate nature of these cases. In the arthritic form the symptoms are said to have cleared up in from thirty-six to forty-eight hours, the pain and tenderness passing off and leaving greater movement in the joints.

The Infectious Agent of Whooping-Cough.—Menschikoff (Russij Wratsch.) draws attention to the investigations of this subject by various authors and then gives the results of his own control experiments made with the Bordet-Gengou bacillus of tussis convulsiva. The cultures of the bacillus obtained by him from the sputum showed rapid growth upon a nutrient medium consisting of glycerin-agar with considerable addition of blood human. These cultures were very toxic for animals. When the culture medium contained only a small amount of blood, the virulence of the microorganism was diminished.

That these infectious agents are specific for pertussis is rendered probable by the following:

1. In very small children who previously were free of affections of the lungs and respiratory passages, the bacillus was present in enormous numbers in almost pure culture in the sputum during the course of whooping cough.

The Ultra-Violet Rays.—Bordier in the Lyon Medical, has studied the penetrating powers of these rays in relation to all manner of substances and solutions, including the fluids and tissues of the human organism. The doctor says that alcohol and chloroform are more opaque to these rays than water, and in regard to colloidal substances, such as gum arabic, gelatine, and albumin, their opacity is inversely proportional to the amount of water they contain. Metals in the colloidal state completely arrest the ultra-violet rays. The organic fluids vary in their transparency. Cerebrospinal fluid is a little more opaque than water, pleuritic fluid more so, and milk and urine completely arrest these rays. In regard to the tissues of the eye, vitreous humour is as transparent as water. The cornea arrests a large proportion of the rays, thus protecting the deeper parts of the eye. The crystalline lens is completely opaque to these rays. It becomes fluorescent under the influence of these rays, and a fulfilling the duty of protecting the retina in this way the author suggests that it may itself suffer from their action, resulting in the early product of cataract, as in the case of glass-makers and founders. Eyes operated upon for cataract and in consequence deprived

of their natural powers of defence should be specially potected against the action of the ultra-violet rays. The doctor points out further that such lights as the arc lamp, the Auer light, and the mercury vapour light should only be used for large spaces. On the other hand, the work table or desk should be lighted by the oil lamp or electric bulb, which are very feeble in ultra-violet rays. The author makes the further interesting observations that the dust and smoke in the atmosphere of towns occludes these rays, and hence sunstroke is much rarer here than in the country and on the mountains. On the other hand, he suggests that the tonic effects of the country aix are due to the same cause.

Conservative Gynecology.– Dr. Runge, (Berliner Klin. Woohensch) believes the use of hot air apparatus indicated in all chronic inflammatory conditions of the female genitals. This treatment rapidly relieves the pain and inflammatory symptoms, and swellings of the adnexa generally subside completely. Another method which affords excellent results in the introduction into the vagina of the colpeurynter filled with quicksilver, which is allowed to remain for an hour daily. Its chief indication is in cases of fixed retroflexion as well as in chronic retrouterine exudations, hematocele, etc. Another useful method is vibratory massage, which is particularly adapted for all chronic inflammations of the internal genitals as well as for the absorption of cicatricial tissue in the parametrium after childbirth and operation.

Sausage Poisoning.– Hinze (Berliner klinische Wochenscrift) records a case in which a young man, aged twenty-two, within twenty-four hours after eating half a pound of sausage, presented symptoms of acute intoxication—vomiting, rapid pulse, albumin in the urine, diminished quantity of urine and other signs of kidney inflammation; constipation, slight fever, together with total blindness, paralysis and disordered sensation in the lower limbs. At the end of four months' treatment his condition was still very bad. Movements of the limbs were possible, though they were still very weak. Loss of sensation and disordered sensation still persisted in the legs. The left eye regained a fair degree of vision; the right remained very bad.

Mercuric Chloride Injections for Varicose Veins.—Scharff (Semaine Medicale) says that the effect produced by injections of a weak solution of mercuric chloride into varicose veins differs from that of a similar injection into healthy veins. In the latter case hardly any reaction is produced; but in a varicose vein the effect is to produce inflammation with thrombosis. Dr. Scharff begins with an injection of 0.5 c.c. of a 1:5000 solution in normal saline, gradually increasing the dose, and if necessary increasing the strength of the solution to 1:3000. Superficial small veins require smaller doses. To obtain good results the solution must come into contact with the whole of the endothelium of the varices, and the elastic bandage applied to the limb to render the veins obvious should, therefore, not be removed till after the injection. From three to eight injections may be made at different points at one sitting. The interval between sittings depends on the nature of the reaction. If an intense burning sensation is produced, the needle has penetrated the wall of the vein and entered the surrounding tissue: properly made, in the most prominent part of the varices, and preferably in those farthest from the heart. The author has applied this treatment in 90 cases with satisfactory and lasting results.

Magnesia in Attacks of Angina.—Chlapowski (Semine Medicale) says that attacks of angina pectoris, particularly those of the so-called false kind, are frequently relieved by the spontaneous evacuation of gas from the stomach. The doctor therefore employs a substance capable of absorbing gases, such as calcined magnesia or magnesium hydrate, which he gives in doses of 0.5 gramme (7½ grains) after each meal. When the attacks are due to digestive disturbance, this effects prompt relief, not only in cases of false angina, but even when there is some cardiac lesion.

Subcutaneous Injection of Oxygen.—Ramond (Le Progres Medical) records his method of treating conditions of asphyxia, toxic or otherwise, by subcutaneous injections of oxygen. In cases of asphyxia from some mechanical obstruction in the air passage; the treatment can only give but doubtful and temporary relief, the only proper remedy being removal of the obstruction; but it may serve to ward off imminent danger in the meanwhile. The injections are of greater service in the various conditions of toxic asphyxia such as uræmia, diabetic coma, and in poisoning by carbonic acid, carbon monoxide, ether, and chloroform. Of even greater benefit is the treatment when mechanical and toxic factors are combined—such conditions as bronchitis with emphysema or cardiac affection and pneumonia. The oxygen injections not only supply the needed aeration to tho tissues, but stimulate the organism, and by oxidising the toxins render them innocuous. The technique is quite simple. The skin over the abdomen or thigh is disinfected and a

syringe needle passed through the skin into the subcutaneous tissue. By attaching a syringe and aspirating, it can be ascertained if the needle has penetrated a vein. In such a case the syringe will fill with blood, and the needle must be withdrawn and a second puncture made. The needle is then connected with the supply of oxygen by a rubber tube and the oxygen allowed to flow slowly in. A cottonwool plug may be inserted in the neck of the needle to filter the oxygen from any solid particles. About 1½ litre may be injected, and the operation may be repeated several times a day. According to the author, the patient frequently obtains so much relief that he clamors for a constant renewal of the treatment. The author has also tried intra-rectal injections, but the beneficial results are obtained more slowly. The doctor believes the two methods might be combined.

Fibromyomata Uteri.—McDonald (Jour Obst. Gyn. Brit,, Emp.) comments on a series of 700 cases of uterine fibromyomata with special reference to degenerative changes. The doctor says that the menopause does not bring a cure to fibroids; on the contrary, increasing age increases the danger from these growths. There is little danger of malignancy arising in fibroids before forty years of age, after which time the danger increases with each year. In view of the sarcomatous changes, carcinomatous associations, and other degenerations of uterine fibromyomata, early removal is indicated when they are of sufficient size to produce symptoms and cause the patients to seek advice. Small uncomplicated fibroids in young women do not require early treatment. Thorough pathological examinations should be made of all fibroids for evidence of malignancy. The tumor should be opened at the time of operation and examined for adenocarcinoma or sarcoma. Particular study should be devoted to those tumors which are necrotic, cystic, or both, as among these are found the largest proportion of malignant changes. In view of the large percentage of inflammatory changes in the Fallopian tubes and appendix, these should be examined at the time of the operation, and removed if diseased.

Iodoform and Thyroidism—Dr. Short in the Bristol Medico-Chirurgical Journal comes to the following conclusions:

1. That iodoform, when absorbed by the system, either from a wound or from the bowel, is excreted into the blood by the thyroid gland as iodothyrin, which is the active principle of the colloid of that gland. 2. That an excessive quantity will produce symptoms of acute thyroid intoxication. He states that both the above appear to be thoroughly accepted by the modern school of physiologists and pharmacologists. The Doctor adds a third conclusion, which as far as he is aware has not been previously recorded

3. That in the susceptible person iodoform may precipitate an attack of chronic thyroid intoxication, namely exopthalmic goitre. He points out that iodine is an essential constituent of the active principle of the colloid. Deprivation of iodine is a cause, probably the only cause, of parenchymatous goitre. Iodides and iodoform increase the amount of iodine in the thyroid colloid, with a corresponding increase in its physiological activity. The constitutional symptoms of iodoform poisoning are due to acute thyroidism. In susceptible persons iodoform may light up an attack of chronic thyroidism, that is of exophthalmic goitre. One such case came under the writer's notice. A middle-aged lady was treated for a carbuncle in the perineum, which was dressed by a medical practitioner and a nurse with very ordinary quantities of iodoform. During three weeks about half an ounce of the powder was dusted on, and altogether about 40 inches of narrow iodoform packing gauze were used. The carbuncle healed well under this dressing. For weeks after the cessation of treatment she continually complained that she could smell and taste iodoform, though there was none in the house. She developed symptoms which caused the writer and consultant to come to the conclusion that she was suffering from Grave's disease. The following practical deductions are made. Iodoform should be used sparingly on absorbing surfaces, especially in adults. It should be avoided if there is any reason to suspect a tendency to exophthalmic goitre. He concludes by making various suggestions for the treatment of exophthalmic goitre.

Zinc Ions in Carbuncle

The following method was successfully employed by Leduc in the treatment of painful carbuncle of the neck. The negative pole was applied to the calf by means of several thicknesses of absorbent material, saturated in warm salt water, and rolled round the leg. The carbuncle was punctured at its base by means of a tenotome, and a zinc needle, connected with a positive pole, introduced into the puncture. The current was then passed for half an hour, during which time its intensity was gradually increased to 30 milliamperes. Pain began immediately to diminish, and disappeared, together with the inflammation, on the following day. Similar treatment proved efficacious in cases of boils on the neck, a

compress of zinc sulphate solution (one-half per cent.) being used instead of the zinc needle.—Archives d'electricite Medicicate.

Diuresis After Use of Fibrolysin.

Few preparations of modern times have given rise to so extensive a literature and so many favorable reports as fibrolysin, yet few authors have directed attention to the pronounced diuretic affect of the drug. Schnitter has carefully measured the urine before and after an injection, and has found the flow quite markedly increased in six out of eight cases. Sometimes this effect is delayed. Thus, twice it was observed on the first day, three times on the second, once on the third, and twice on the fifth day. The fact that relatively small doses cause a prolonged diuresis may make the drug of value as a diuretic.—Muench. med. Woch.

Balsams in the Treatment of Gonorrhea.

M. M. Premener, of Moscow, reviews the history of balsams, extending back more than one hundred years, and then discusses the properties and action of a large number in use today. Preference is given to santyl-Knoll, which is probably the most commonly used, and is especially valuable since tasteless and free from disagreeable after-effects. In general the author agrees with most other authors that balsams are valuable adjuncts in the treatment of gonorrhea. The therapeutic action of all employed at present is about the same, hence the choice will depend chiefly upon the presence or absence of after-effects. In this respect the preparations will vary considerably. Balsams of copabia, and oil of santal with its numerous substitutes, will give rise to pronounced after-effects, which are considerably less marked, though not entirely absent, with such preparations as blenal and gonosan. Numerous publications and the author's own experience, he claims, show that in santyl-Knoll the after-effects are reduced to the lowest possible degree.—Terapeutitscheskoje Obozrenie.

The Radical Operation for Cancer of the Pylorus.

Groves (Trans. Roy. Soc. of Medicine) is of the opinion that the results which follow the radical operation for pyloric carcinoma and the high mortality in such cases are due largely to the cases not being obtained early enough by the surgeon, owing in part "to valuable time being lost in employing various recondite methods of diagnosis."

He emphasises the following points: That there is a good prospect of a cure in early cases. That exploratory operations should be performed for diagnostic purposes in all doubtful cases. That the immediate operative mortality may be greatly reduced by operating in two stages. That a more systematic attempt should be made to remove the whole of the associated lymphatic area.

The cardinal symptoms of gastric carcinoma are pain, vomiting and rapid emaciation. Of these, Groves regards rapid emaciation as the most significant. "A man with cancer of the stomach will generally lose as much weight in three months as a patient with gastric ulcer does in a year."

Groves advocates that in order to obtain an adequate removal of the associated lymphatic area as well as the primary growth, it is necessary to take away the great omentum and the tissues in front of the pancreas. This is done as follows: A posterior gastro-enterostomy is performed. Ten days later the abdomen is reopened, the gastro-hepatic omentum is divided. Through this opening into the lesser sac the coronary artery is ligatured and cut close to its origin from the cœliac axis. The peritoneum is incised along the upper border of the coronary vessels to the lesser curvature of the stomach. The pyloric and gastro-duodenal arteries are ligatured close to the hepatic artery. The great omentum is then divided from the proposed line of section of the stomach to its left free margin. The great omentum is then turned up and separated from the anterior aspect of the transverse colon. The stomach and duodenum are then divided. The prepancreatic peritoneum is then removed by carrying the divided duodenum to the left and stripping off, by gentle gauze pressure, the peritoneum which passes from the pylorus on to the pancreas. This removes at the same time the peritoneum which passes from the base of the great omentum over the transverse mesocolon on to the pancreas. By this operation the entire lymphatic area connected with the pyloric end of the stomach is removed in one piece.—Edinburgh Medical Journal.

Removal of the Frontal Bone for Septic Osteomyelitis.

C. J. Symonds reports a case in which the infection followed chronic suppuration of both frontal sinuses, and existed before operation. In a series of operations the frontal bone was removed, together with a part of the sphenoid, the roof of the right orbit and its inner wall, and the orbital ridge. On the left side part of the orbital ridge was left. The case was shown as an example of a rare complication, and as a recovery from a grave condition of infection. The other point of interest was the reconstruction of the greater part of the

frontal bone and the consequent restoration of the forehead. On the left side the frontal sinus had been operated upon by the method of Watson Williams with no perceptible scar.—Royal Society of Medicine.

Tuberculous Stenosis of the Pylorus.—Dr. Tappeiner (Beitrage zur klinischen Chirurgie,) reports a case of stenosis of the pylorus due to tuberculosis in a child twelve years of age operated upon by Payr. The condition of the patient at operation did not permit of resection, so recourse was had to posterior gastroenterostomy. The wound healed by first intention. The patient left the hospital in twenty-four days after the operation, having gained 20 pounds in weight, and three months later was entirely well.

Aside from acute miliary tuberculosis, tubercular lesions of the stomach are very rare. When presentit is in one of three forms, the ulcerative, the hypertrophic, or the fibrous. The ulcerative form does not call for surgical treatment except when severe hemorrhage or perforation occurs. The fibrous and the hypertrophic forms are of surgical interest on account of the fact that they usually lead to stenosis, inasmuch as nearly always the seat of tubercular stomach lesions is in the region of the pylorus.

A search of the literature shows that 27 cases of tubercular stenosis of the pylorus have been reported. Of these, 16 were treated by gastroenterostomy, 8 by resection, 1 by excision of the ulcer, 1 by pyloroplasty, and in 1 only an exploratory incision was made. Doubtless the ideal operation is resection, but the surgeon is often compelled to confine himself to gastroenterostomy, because by the time patients are brought to operation the general condition is so poor that they are not able to endure a prolonged operation. Furthermore, resection is not adapted to those cases, comparatively frequently met, in which the gastric lesion is secondary to tubercular lesions elsewhere. Gastroenterostomy usually results in improvement of the patient's condition, for it circumvents the mechanical hindrance to nutrition and gives the lesion rest and favors its healing. A secondary resection can be done after partial recovery takes place if no other lesion of tuberculosis can be found in the body. The mortality is large. Of the 27 reported cases the majority had died within a year after operation following temporary improvement. The prognosis is made worse by the fact that these patients as a rule have pulmonary or other forms of tuberculosis in addition to the gastric lesion. It is of interest to note that gastric tuberculosis is rare in young age; the youngest patient in the series was twelve years old.

The Coagulation of the Blood in disease.—Addis (Edinburgh Medical Journal) refers to previous work done in connection with this subject, and points out the lack of general agreement in the findings of different observers which he considers to be due to the fact that pathological variations in coagulation time are small, and the variations due to experimental error are large. Having previously shown that age, food, sex, etc., have no perceptible influence on the coagulation time, he insists on the importance of the external temperature at the time of taking the blood, and the method by which it is taken. The latter is especially important as the amount of thrombokinase in blood flowing from a wound depends on the rate of flow.

In 70 per cent of various morbid conditions the coagulation time was found to be normal, though some of these showed marked and obvious chemical, morphological, and physical alterations in the blood.

No evidence was obtained of any connection between leucocytosis and coagulability.

Certain anomalies of coagulation were observed in non-bacterial diseases, but more results are needed before these can be said to be constant.

In bacterial diseases it may be concluded that no marked effect is produced unless the organisms are actually present in the blood. When this occurs, the typhoid bacillus and the pneumococcus hasten coagulation, while streptococci and staphylococci delay it.

Auto-agglutination of the red corpuscles was seen in varying degree in all acute bacterial infections, except typhoid. It was most marked in cases of staphylococcal and streptococcal septicemia and pyemia.

Moderate loss of blood has no effect on coagulability, but very large hemorrhages are followed by an acceleration of coagulation.

Treatment of Syphilis By Intramuscular Injection of Metallic Mercury.—Adams (Journal of the Royal Army Medical Corps) suggests the treatment of syphilis in his majesty's navy on a uniform basis, by means which appeal to him as being most suitable. The Dr. says that up to the year 1898 syphilitic patients were treated almost entirely by internal administration of mercury in the form of pills and mixtures, inunction and fumigation being used as variants occasionally. After pointing out the obvious disadvantages of mercury given internally or by inunction in military service a number of formulæ for hypodermic

injection are given which proved unsatisfactory. It is noted that a cream to be most serviceable for intramuscular injection must contain the mercury in an extremely fine state of subdivision; that it must be fluid at ordinary temperature so that it works freely in the syringe and needle, and must be viscid so as sufficiently to suspend the metal. There must be no abrupt transition on warming from the fairly solid to the liquid state. The following is the formula which was finally adopted and is at present used:

Mercury, 20 parts;
Anhydrous lanolin, 30 parts by weight;
Chlor-butol, 2 parts;
Liquid paraffin, to 100 by measure.

This gave a cream containing 1 grain in 5 minims. Chlor-butol was adopted as an antiseptic and analgesic.

For over twelve months this preparation was made in the dispensary at Haslar with an ordinary mortar and pestle, and having been found by the results of practice in the venereal wards to be in every way satisfactory, it was decided that it should be issued to the service afloat.

The quantities required rendered the making by hand impracticable. A special mill was installed in the pharmaceutical laboratory, being practically a large granite mortar and a heavily weighted pestle driven by power.

In actual preparation, redistilled mercury is purified by allowing it to flow in a thin stream through a long column of nitric acid; the metal is then thoroughly washed in distilled water and filtered through chamois leather.

A particularly pure anhydrous lanolin is used; it is sterilized by heat and filtered. One part of lanolin is introduced into the mill, and two parts of mercury are added gradually as the globules disappear; trituration is then continued until a small portion, on being examined under a microscope, shows the mercury to be in a sufficiently fine state of subdivision. From the paste so obtained the mercurial cream is made by cautiously heating the paste in a porcelain dish with the additional proper quantity of lanolin, being finally diluted to the definite measure required with sterilized paraffin in which the chlor-butol has been dissolved. It is then strained through sterile white gauze and poured into bottles of two-ounce capacity, in which form it is issued for use.

Prognosis and Curative Process of Otitic Brain Abscess.—Neumann (Internation. Ctrlblt. f. Ohrenheik) says that the histological structure of brain abscess, the histogenesis of its capsule is governed much more by the bacterial species than by the age of the abscess. While the anaerobic bacteria practically never give rise to an abscess-capsule, the pyogenic cocci favor the development of an abcess-membrane in the brain, in case of abscess formation.

With special reference to the histology of the cicatrization process of brain-abscesses which have been evacuated through operative interference, the author expresses the following opinion: The main portion of a brain abscess cicatrix is formed by the connective tissue furnished by the dura and the blood vessels; this becomes arranged into a reticulated network, into which the glia proliferates secondarily, after the manner of a trailing vine. When the development of the supporting connective tissue framework fails to occur for some reason, usually because the puncture-orifice is too small, the proliferating glia remains applied to the abscess wall, representing a thin internal lining of the evacuated abscess. This abscess heals under formation of a cyst.

The main portion of a brain abscess cicatrix is furnished by the granulating cut margins of the dura, the more abundantly the longer the incision of the dura that has been made for purposes of evacuation.

Among the numerous cases which served as the material for these investigations, one concerned a brain abscess which was operated upon by Urbantschitsch and came to autopsy four years after the operation. Another was a brain abscess, operated upon by Politzer, the patient dying two years after this evacution from an unoperated brain abscess on the other side.

Ten Years' Experience in Abdomtual Surgery.—Thiemann emphasizes the following points:

Swallowed foreign bodies very rarely cause ileus. If the foreign body has passed through the esophagus it generally slides along through the bowel without causing obstruction: the great danger is perforation, and when this occurs it is generally in the descending part of fhe duodenum. Characteristic for perforation by a foreign body is a peculiar tough induration of the vicinity, which may secondarily interfere with the permeability of the bowel.

Cancer of the duodenum causes comparatively slight local symptoms in comparison with the general cachexia.

The favorable influence of a simple laparotomy on tuberculous peritonitis is confirmed by the experiences related.

The success of operations for correcting atresia of the rectum is often compromised by malformations elsewhere.

In 36 of the 321 cases of incarcerated hernia the trouble was an acute partial en-

terocele; the disturbances are so slight while there is so much danger of perforation even with cautious reduction that the mortality is unusually-high, 44 per cent. It occurs almost exclusively with femoral hernia, but 3 out of 4 cases of obturator hernia were partial enteroceles.

The symptoms with torsion of the appendices epiploicæ were extraordinarily severe.

The best measures to sustain the patient after operations are rectal saline infusion and systematic lavage of stomach and bowel.

Physostigmin generally fails, and saline-suprarenal extract infusion has only transient effect in peritonitis.

Perforation of a typhoid ulcer is inevitably fatal unless the process becomes walled off by adhesions.

In little girls, the peritonitis set up by diplococci, staphylococci or streptococci has a grave prognosis, contrary to that of gonococcus peritonitis. In 13 cases of this kind, only 2 of the patients were saved. In one case a right crucial incision showed the whole abdomen full of pus, the appendix being apparently normal and the tubes inflamed. After wiping out the abdomen it was completely sutured and the girl, aged 13, recovered after a few days of fever. Infection is by way of the genital tract and it may occur without lesions in the latter.

Symptoms suggesting ileus may develop after pneumonia, pleurisy and pericarditis, but the abdominal findings are negative. An important differential sign in such cases is the good aspect of the tongue.

Chloroform general anesthesia does not seem to affect the course of pneumonia unfavorably.

With the acute dilation of the stomach resisting all other measures, gastroenterostomy is justified.

Postoperative paralysis and dilatation are most effectively combated by early systematic lavage of the stomach.

Saline rectal infusion seems to be the most effectual means to prevent postoperative adhesions but the adhesions developed by the suppurative process are not influenced by it.

All stumps should be covered with peritoneum, and before removing a high rectal cancer, the peritoneum should be shut off above through a left crucial incision.—Archiv. f. klin. Chir. Berlin.

The Bed Bath.—A very convenient method of treating fever patients with the bed or slush bath is described in Wilcox's "Manual of Fever Nursing." This is less severe than the tub bath and is valuable when the tub bath is not available.

The bath is given upon a bed upon which has been placed, under the patient and over the pillows, a large rubber sheet reaching almost to the floor at the foot of the bed. This is covered with a muslin or cotton draw sheet. Blankets rolled lengthwise are placed under the rubber blanket at each side, close to the patient, meeting at the feet. The pillows from the upper end of the trough. Several pails of water are poured into this trough and kept cooled to the proper temperature. When the bath has been given, the water is drawn off by raising the head of the bed, separating the rolls of blanket at the foot of the bed, and allowing the water to run into a pail at the foot of the bed. A dry sheet is thrown over the patient and the rolls of blankets are removed. Next the patient is dried, and the wet rubber and muslin sheets are removed. This bath is especially applicable in typhoid fever. The best temperatures are 100° F. for a period of three or four minutes to start with, then gradually reduced at the rate of half a degree a minute until the patient begins to shiver. The cooling should be accompanied by friction to the entire surface of the body.—Exchange.

A Rare Case of Osteitis of the Temporal Bone.—Piolti discusses the subject of osteomyelitis and osteitis of the temporal bone, from the clinical as well as the pathologico-anatomical point of view, more particularly in regard to the occurance of a primary osteitis of the temporal bone. The case observed by him was characterized by the following unusual features:

1. Absence of fever and other symptoms pointing to a serious lesion. The only symptom present was pain.
2. Slow course of the disease.
3. Relative benignity of the process, which remained superficial and was not followed by complications.
4. Absence of microscopical changes, at the operation.
5. Demonstration of streptococci in the pus and in the granulations, in spite of the slight gravity of the process.—Archiv. Ital. di Otclogia, Rinologia e Laringol.

Anaphylaxis for Cow's Milk in Nurslings.—Barbier states that when an infant is breast-fed, he takes in a homologous albumen, but when he takes cow's milk he ingests a heterologous albumen. This is poorly assimilated, and only after transformation. Entering the blood it may produce the same phenomena as the introduction of a foreign serum. The pancreas and liver transform albumins. If they are insufficient the milk albumin passes into the blood, as has been proved clinically, and

causes the usual reaction of anaphylaxis. In some cases a febrile reaction has been observed in children after taking cow's milk, and a leukocytosis not seen under breast-feeding. In some infants also there is marked intolerance for cow's milk. This is observed after some days of water diet or abstinence from milk, and its resumption must be begun with great care. This is especially true in convalescence from dyspepsias and enteritis. These accidents of anaphylaxis are observed mostly in nurslings who are fed on the bottle, and the milk of asses is better borne than that of the cow. If the dose of cow's milk be continued or increased, symptoms of general intoxication occur. Three illustrative cases are given by the author. The improvement in these cases is immediate when the kind of milk is changed. When, after a few months, an attempt is again made to use cow's milk the same result is obtained. Some infants are intolerant from birth for cow's milk; they have a congenital anaphylaxis for it. This is found in the weak, the premature, the heredo-syphilitic, the heredo-tuberculous, etc. Acquired anaphylaxis is apt to arise in children who have been overfed with milk, and is shown by digestive intolerance. Anaphylaxis is generally preceded by dyspeptic symptoms. This condition explains the extreme difficulty of feeding premature infants on cow's milk. There can be no greater mistake in such cases than to persist in the use of such milk. If possible the child should be returned to the breast. After five or six months of age, malted gruels may be used or soups made without milk—Arch. de med. des enf.

Hysteria, and the Modern Method of Psycho-Analysis.— Friedlander (Psych-Neurol. Woch) arrives at the following conclusions:

1. A causative treatment, applicable to all cases of hysteria does not exist.

2. The cathartic method of Breuer-Freud has been extremely fertile for the theoretical psychology of hysteria. Practically, it is applicable to certain cases of traumatic hysteria, which can be cured through this method. The association-studies of Lang and others are entitled to consideration from the psychological point of view.

3. The psycho-analytical method is certainly not the only way to exert a favorable influence upon hysterical states, as well as compulsory ideas, neurasthenic, conditions and the like. Numerous authors reject the method of psycho-analysis altogether, in so far as it is connected with detailed discussion of sexual matters and perversions.

4. Psychic treatment such as is employed by all experienced neurologists, not belonging to Freud's School, accomplishes the same results as does sexual psycho-analysis, without any possibility of doing harm. According to the nature of the case, it may or must be assisted by general therapeutic measures, applicable to the treatment of all functional neuroses and psychoses; such as strengthening and hardening procedures.

Cerebral Physiology and the Education of Abnormal Children.— Love (Glasgow Medical Journal,) lays down the following general principles:

1. It is useless hammering along a ruined tract or along a sound tract toward a ruined center in the hope of imparting knowledge to a really deaf and blind child. It is better to use a circuitous though less used route.

2. When the remains of sight and hearing are considerable—when in the deaf they serve for the discovery of vowels, consonants and words; in the blind for what under favorable conditions of light, etc., is written on a notebook or a blackboard—these should be used to the utmost.

3. When a circuitous route is necessary education should be directed so that Broca's center, the hereditary center for the memory of words (spoken), is used.

4. When a boy is clever with his hands and good in his games, when the difficulty is chiefly with his acquisition of language, word-deafness and word-blindness should be sought for.

5. In the teaching of aphasic children who are not mentally deficient Broca's convolution on the right side, unless the defect is bilateral, may be made to take up the work of the hereditary speech center of the left side. When failure shows that the defect is probably bilateral, education may proceed by the help of writing and the manual alphabet.

6. Mentally deficient children offer a different problem to the educator. The great need of the movement is to recognize their limitations.

Having due regard to physiologic indications present, the teacher should be left as free as possible in selecting the method and ordering the education of the abnormal child. The author, however, lays down the following physiologic indications with regard to the education of the orally taught deaf:

(a) As signs are used very extensively in the education of the hearing child—during his first and second years of life—there is no physiologic reason for suppressing them at the beginning of the school education of the deaf child. They should be

used just as they are with hearing children, and excluded, as in the case of the latter, as soon as the more accurate equivalent has been learned.

(b) During the early years of school life the acquisition of articulate speech should be the chief business of the deaf child. As soon as may be, a vocabulary of common words should be so thoroughly learned that its use in speech becomes automatic.

(c) In the education of the deaf, drawing should follow speech and precede writing.

(d) Until speech has become automatic no finger-spelling should be known to a deaf child. A combined method in which the combination is that of finger spelling and speech is, from the physiologic standpoint, to be condemned.

(e) The difficulty of procuring automatic speech in the deafborn, while necessarily limiting the speech by these children, does not mean that it is not worth while teaching them speech.

Van W.

The Treatment of Snake-Bite cases With Potassium Permanganate.— B a n nerman (Indian Medical Gazette) says that at the Bombay Medical Congress last year Several papers were read on snake-bite and the treatment of snake poisoning. In one of these papers there is discussed the advisability of using potassium permanganate as an antidote. After stating the well-known fact that this chemical will neutralize snake venom if mixed with it, and calling attention to the difficulty that Fayrer had found in bringing the two substances into close contact in the tissues of the victim, the article proceeds as follows:

"Now it appears to me there is no difficulty in bringing the two substances into intimate relationship in the system if the permanganate is injected into the blood stream instead of into the tissues. As far as I am aware this has never been done, and I think that exhaustive experiments should be made on the lower animals with a view to determining the efficacy of this agent administered in this fashion, and fixing a dose." In the same paper the Doctor recommends "the intravenous injection of 350 Cc. of a 5-per cent solution of permanganate of potash" in cases of snake-poisoning in human beings.

In the course of carrying out certain experiments ordered by the government of India, to test the value or otherwise of potassium permanganate as an antidote for snake venom, it was necessary to use the intravenous method of administration. As a preliminary a few control experiments were carried out to see if this salt was harmless, when injected into the blood stream. As 350 Cc. of a 5-per.cent solution was recommended for the treatment of a human case, it was thought that about 59 Cc. of a similar solution might safely be injected in the case of a dog of about twenty pounds in weight. Accordingly a warmed solution of this strength was slowly injected into a vein of the hind leg of a dog weighing 15 pounds. When 10 Cc. had been introduced however, the dog was gasping for breath and was dead in seventy-five seconds. Post-mortem examination revealed the cause of death to be intravascular clotting. Further experiments confirmed this trial, 5 Cc. being sufficient to cause death in sixty-three seconds.

Experiments with a solution of potassium permanganate of a strength of 0.5 per cent did not cause such sudden death, but the result was just as certain. For instance, a dog of fifteen pounds weight received 40 Cc. of a 0.5-per-cent solution of potassium permanganate intravenously in the course of four minuies. Next day the leg was swollen and edematous, but gradually became normal in size. The dog died, however, seven days after injection in a very wasted condition, The post-mortem examination revealed intense yellow discoloration of the whole of the tissues. The liver was lemon-yellow colored and very friable, and reminded one of the appearances seen in acute phosphorus poisoning. The right lung was highly congested and hepatized-looking, though portions floated in water. Both kidneys were highly congested.

Another dog to which 50 Cc. was administered intravenously was in fifteen minutes attacked by violent colic, passing blood-stained mucus. The urine passed next day was dark-brown and contained traces of manganese. The dog died on the second day. The post-mortem examination showed congested lungs. Heart contained clots. Liver pale and mottled like a fatty liver and bile-stained. Kidneys enlarged and purple colored, and much congested. The spleen was crepitant like a lung, and several bubbles of air were noticed under the capsule. On section, air was easily expressed from the cut surface. As the carcass was perfectly fresh, this could not have been due to decomposition, but was probably caused by the liberation of oxygen from the potassium permanganate. The bladder was collapsed and contained several inky-black masses from the size of a pin-head to that of a small pea. The vein of the injected leg was thrombosed in its entire length, and about an inch of clot projected up into the vena cava.

Acute Hemorrhagic Pancreatitis cured By early operation.—Dr. Imfeld (Deutsche Zeitschrift fur Chirurgie) records in detail a case of acute hemorrhagic pancreatitis cured by early operation. The Dr. states that the most frequent cause is gallstones; quite often it results from catarrh of the stomach and intestines; other causes are infectious diseases, notably typhoid fever and mumps, and alcoholism. Acute hemorrhagic pancreatitis is characterized by sudden, excruciating pain or continuous nature. mostly in the epigastrium and radiating into the left, occasionally the right, side of the abdomen or into the left shoulder-blade or between the shoulder-blades. There is pain on pressure, not in the epigastrium, but in the region of the gall bladder. The Mayo-Robson pressure point, half-way between the ninth rib and the navel, is characteristic provided ulcer of the duodenum can be ruled out. Frequently there is nausea and copious vomiting of bile; hiccough sometimes occurs and is of evil import; there is constipation and retention of flatus. The abdomen is soft, but often there is deep resistance in the epigastrium and tenderness to pressure. The urine is usually free from sugar, but sometimes there is albumin. The presence of indican is not of importance in diagnosis; frequeutly there is bile in the urine. The general condition is bad; the patient is in collapse, the pulse is small and frequent, the temperature normal or elevated, there is great restlessness, and at times there is icterus and edema. In the author's case, contrary to the general description, the pulse was slow, being from 48 to 70 a minute. It is probable that this condition of the pulse is noted only in early cases. There was also sugar in the urine after the third day.

The only treatment of value is surgical, and laparotomy should be done on the first suspician of acute pancreatitis. Of 39 cases treated medically, 36 died. Surgical treatment consists in laying free the pancreas by splitting the lesser omentum or the gastrocolic ligament, flushing the region of the pancreas with sterile water, insision of the pancreas, tamponade, and drainage. Of 118 cases treated operatively, 61 died. Of these 118 cases only 40 were treated by tamponade of the pancreas, and of these 40 only 8 died. Incision of the pancreas is a very important step in the technique. To favor the closure of the fistula the Wohlgemuth diet, consisting in the avoidance of carbohydrates and the administration of sodium bicarbonate, is warmly recommended.

The Physicotherapy of Sciatica.—Orb favors the application of dry cupping glasses which the patients themselves can use, so that the application may be freqvently repeated. He has seen good resvlts in acute cases from wet packs on the hip and leg made with linen or silk bandages, wrung out in water of 60 to 70 degrees and covered with a double layer of flannel. Orb does not employ massage in the acute cases as the hard pressure often employed by masseurs may considerably increase the pains. But very light friction carefully applied by the phpsician himself, avoiding the most painful spots, is sometimes very useful.

Electrolherapy he does not use very often; when he uses it he gives the galvanic current in acute and chronic cases, using two electrodes, each 10 square inches in area, the negative on the abdomen, the positiqe on the posterior iliac spine or the sciatic notch, moving evenly along the leg without interruption of the current.

While the application of physical methods of treatment is limited in the acutest cases of sciatica, it has ample scope, he says, in the sub-acute and chronic cases. In these cases massage is used most frequently. It if necessary to employ very light massage at the beginning of a course of treatment in order to avoid unuecessary and undesirable pains.—Orb in Medical Press and Circular.

The Influence of Age on Growth of Cancer.—The work done by the Imperial Cancer Research Fund has demonstrated that both for spontaneous tumors and for propagable tumors that young animals afford a more suitable soil for transplantation than do old animals, although the latter are much the more prone to the natural development of cancer. The fact that transplantation is more readily successful in young than in old animals shows that although senescence is intimately bound up with the origin of cancer, it is inimical to its continued growth. In each case of spontaneous cancer this inimical influence is neutralized by the perfect adaptation of the cells to their parent and host. The view which has been widely accepted that cancer arises in old animals in parts of the body which retain the normal avidity for food, while that of the rest of the body is diminishing, has been disproved by the results of elaborate cross inoculations of spontaneous tumors into the animals in which they arose and into other cancerous and normal animals, as well as by transplanting propagable tumors in cancerous and normal animals.—The London Medical Journal

Severe Vaccinia and its Prophylaxis.—Geronne reviews the literature of severe cases of vaccinia in man, remarks that the

possibility of serious complications, and even death, from such a source is far too little known to physicians, and cites a fatal case which came under his observation. A two-year old child, suffering from eczema, caught the disease, apparently through the eczematous eruption, from a brother who had been vaccinated. The fever and eruptive and general symptoms were extreme, and the child died fifteen days after onset, with symptoms of general meningitis. For the good especially of the general principle of vaccination, it should be widely understood that every vaccinated person is a carrier of infection who may easily prove a source of harm to those around him. Many cases of serious ophthalmia and keratitis resulting from vaccinia are on record, and these are especially prone to occur in an eczematous child. Great care should therefore be taken to avoid the association of a vaccinated child with one suffering from even a light eczema.—Berl. Klin. Woch.

International Congress in April, 1911.—The date of the next International Congress on Tuberculosis to be held in Rome has been set for the last two weeks in April 1911. The Congress will be held about the same time as the Jubilee of the Independence of Italy and the National Exhibition of Art. The place of meeting for the Congress will be at the Castello St. Angelo (Moles Hadrian). The subject matter for discussion will be divided into five sections, on the origin, spread, prevention, treatment, and organization for the campaign against tuberculosis. Arrangements have been made also for special meetings similar to those held in Washington at the last International Congress. The president of the committee of arrangements is Mr. Guido Bacelli, and the secretary general is Professor Dr. Ascoli. The headquarters of the committee and the secretary general are at Via in Lucina, Rome.

Hydrogen Peroxide Injections in Gonorrhea.—Although injections of hydrogen peroxide were advocated by Lowe in the treatment of gonorrhea some years ago, the method does not appear to have received general recognition. According to Skoulsky, however, most satisfactory results are obtained by these urethral injections, and he ascribes their success to the power of diffusion as well as the bactericidal properties of hydrogen peroxide. They are at the same time much less irritating to the mucous membrane than the silver preparations usually employed. Several cases of acute and chronic gonorrhea are reported in detail in which the treatment was successfully employed. In one case the patient had suffered from a chronic posterior urethritis for three months, and the usual injections of silver nitrate, permanganate of potash, etc., had failed to cure. The author commenced with injections of 20 Cc. of hydrogen peroxide diluted to half strength twice a day, the fluid being retained for three minutes. The amount was gradually increased to 50 Cc., and at the same time the strength was gradually increased till the hydrogen peroxide was injected undiluted. At the end of a fortnight the patient was cured, and bacteriological examination of the urine was negative and remained so. Another case is recorded in which a chronic posterior urethritis was of three years' duration, and similar treatment for a fortnight also resulted in a cure, with complete disappearance of the gonococci in the urine. In acute cases the author does not advise the injections till the second or third week.—The Hospital, London.

Gelatin in Chronic Colitis.

Many patients with chronic catarrh of the colon are instructed to eat large quantities of meat, yet a stool examination will often show that this meat is not well tolerated. In such cases it is well to substitute gelatin, which is never injurious to the diseased intestines and possesses a high nutritive value.

In severe and persistent cases of colitis accompanied by diarrheas, and which have been unsuccessfully treated with the usual drugs, much benefit will result from the use of high injections of hot gelatin. V. Aldor first gives a cleansing irrigation. Half an hour later, with the patient on the left side, from 40 to 80 Cc. of 10 per cent. gelatin, dissolved in Carlsbad Sprudel water, at a temperature of 45 to 52° C., is injected: The patient then rests on his back for two hours with hot applications on the abdomen. Since high temperatures are better tolerated by the sigmoid than the rectum, it is best to introduce the gelatin by means of a rectal tube.—Therap. Monatshefte.

An Improved Wasserman Test.

The Wasserman test has proved invaluable in the diagnosis of syphilis, but unfortunately is complicated for the general practitioner. For this reason, also, it is not available where the facilities of a large laboratory are not at hand. Prof. V. Dungern has simplified the test, and has induced Merck to supply all the reagents in a convenient and stable form, under the name of Von Dungern's syphilis diagnostic.

Briefly, the method is as follows: Two test-tubes are filled each with 2 Cc. of saline solution; to one, a drop of alcoholic antigen

is added. The complement is dried on filter paper, and a definite piece of this is dropped into each tube. A few drops of the patient's blood is defiurinated with a match stick on a watch-glass, and 0.1 Cc. is added to each tube, which after one hour also receive a definite amount of immune serum. In negative cases, hemolysis will begin in a few minutes, while in positive cases the red cells will not dissolve, as the complement necessary has been used up by the antigen in its union with the syphilitic antibody. Numerous controls showed that while much simpler, this modification is also more delicate than the Wasserman and Noguchi tests.—Muench. med. Woch.

Ergot in Labor Cases.

H. Walther has found that ergot given before the extraction of the placenta will often cause a spasmodic contraction of the lower segment of the uterus which will render the extraction very difficult. He never uses this drug before or while the child is born, but finds that several doses of 0.5 Gm. of quinine sulphate or bisulphate are excellent to stimulate the activity of the uterus. As soon as the placenta has been expelled from the womb, large doses of ergot (secacornin) hypodermically or by mouth are indicated. Every obstetrician should also carry in his bag some suprarenin, which may be given intramuscularly or directly into the uterine muscle in severe post-partum hemorrhage.—Muench. med. Woch.

Treatmen„ of Tape-Worm With Filmaron.

Stringari reports that four or five years ago he began to use filmaron in the treatment of tape-worm, and found it to be an excellent and reliable tape-worm remedy. It is very easily taken and produces prompt action. He administered filmaron on an empty stomach, and one hour afterwards gave an efficient purgative (castor oil). Within three hours he could always count upon total expulsion of the parasite, including the head.

Among the cases treated was a boy of nine, whose diet consisted largely of raw meat, and an adult of thirty-seven years; from the latter two tape-worms, including heads, were dislodged one and one-half hours after beginng of treatment. Last year he treated two other cases with most satisfactory results.

The readiness with which filmaron is taken, its harmlessness, combined with the remarkable and prompt action, are qualities which are bound to recommend it to medical men.—L'Italia Sanitaria.

The Results of Bismuth Paste Injections

Giron. in the Gaz. des Hopit., records the results of five cases of chronic suppuration treated by the injection of bismuth paste. The results were not altogether satisfactory. A sinus in the ischio-rectal fossa healed after three injections; a sinus in connection with a large empyema, which had been twice operated on, healed after six injections. Two abscess cavities, the result of acute osteomyelitis in the upper end of the tibia, healed rapidly after scraping and injection with the paste. No improvement was observed in a case of chronic suppuration of the femur subsequent to a fracture. The fifth case treated ended fatally. The patient was suffering from tuberculous sinuses of the hip, with copious discharge and a swinging temperature. Ten days after injection pain and local inflammation developed, the temperature rose, and the whole lower limb became œdematous. The patient died I few hours later quite suddenly. There was no bismuth poisoning, the symptoms pointing rather to a septic phlebitis and pulmonary embolus.

Similar deaths have been recorded after the injection of paraffin for deformities of the nose. Giron is of the opinion that bismuth injections are contra-indicated in the presence of temperature, and that the first preparation of Beck, which contains no paraffin, should only be used.

In a paper on the same subject; Codet-Boisse (Gaz. Hebdom. des Scien. Med., 8th May 1910) also gives the preference to Beck's first preparation of bismuth vaseline, which he finds satisfactory for diagnosis, whilst the paraffin preparation is liable to cause local sepsis from retention of discharges, or bismuth poisoning if the injections are repeated. To avoid the latter risk Codet-Boisse has tried the injection of Mosetig's iodoform preparation, and has found it quite as useful for X-ray diagnosis as the bismuth paste. The after-results have also been encouraging, and the risks of intoxication are much less than with bismuth.—Edinburgh Med. Journal.

Treatment of Neuralgia by Intraneural Injections.

Wiener (Berlin. Klin Wochusch) has employed the method of treatment of neuralgia introduced by Lange in 1904, viz., the intraneural injection of large quantities of normal saline solution, with or without the addition of B-encaine. The Doctor has obtained prompt and lasting improvement in the treatment by this method, even in aggravated cases. In sciatica it can usually be depended upon to do much good, provided the injection be made into the nerve. This is aussured by the pain caused by the needle entering the nerve, and by the severe

pain down the leg which is produced during an intraneural injection. As much as 100 c.c.m. of saline may be injected into the nerve; then in from three to five hours after the injection the patient usually has a rigor and a rise of temperature, which may last from three to four hours. This is due simply to the saline and does not indicate any bacterial infection. It is usually accompanied by severe pain shooting down the affected limb. The patient must rest for 24 hours after the injection, and by that time the pain has, as a rule, entirely disappeared, and the patient can walk alone, although a feeling of stiffness still persists. By the third day all pain and stiffness have disappeared. In many cases one injection is insufficient, but in others two or three injections may be necessary. Of 60 cases thus treated, one case (a hysterical woman) was no better, eight cases were improved, and 51 cases completely cured. In cases of trigeminal neuralgia the saline is injected in and around the point of emergence from the bone of the affected branch. The injection should consist of 25 c.c.m. of saline, and it usually causes no pain, thus differing from the injection of absolute alcohol. Wiener has treated 26 cases of facial neuralgia in this way, two of which received no benefit, two were improved, and the remaining 22 were cured. As to the cause of the improvement, most authors believe it to be entirely mechanical in nature, but Wiener considers that the alterations in the circulation of blood and lymph which are pdorduced play the major part in bringing about the relief which usually follows. Provided aseptic precautions are taken, no ill effects will follow the adoption of this method of treatment.

Meta-traumatic Vasomotor Trophic Neurosis.

Cramer (Archiv. fuer Orthopedie) contributes three observations on cases of trophic angioneurosis of the hands, the result of accidental injuries. The patients were strong and healthy men, without a neuropathic diathesis or instability of the nervous system. Extreme nervousness and depressive symptoms did not appear until a long time after the injury, as a sequel to the severe disturbance. Vasomotor, trophic, and sensory disturbances predominate in the clinical picture. The prognosis is unfavorable. Six similar cases were found in the literature. From the point of view of the differential diagnosis, hard traumatic edema of the back of the hands enters into consideration, which, in the author's opinion, belongs to the trophic angioneuroses in the majority of the published cases. Hysterical edema should also be kept in mind, although this is more apt to originate on an hysterical basis than as the result of traumatism.

The microscopical examination in these cases showed an increase of the connective tissue and the vessels, but no changes in the nerves.

Nasal Hemorrhage: Causes and Treatment.

Mylie (Medical Press and Circular, London) deals with this subject as follows:

Local Causes are: (1) Adenoids, both in infants and adults. (2) Granulomata, which may involve any part of the nose or accessory cavities and are correctly diagnosticated after micoscopic examination. They are subdivided into simple syphilitic and tubercular granuloma, and those associated with glanders, which are rare. (3) Polypi, subdivided into simple, which are pendulous hypertrophies of the mucuos membrane, usually nonrecurrent; and complicated forms, caused by sinus diseases, consisting of myxedmatous denegeneration of granulation tissue. (4) Ulceration and perforation of the septum involving one or more of the small arteries. (5) Angioma of the septum; very rare. (6) Small warts of the septum. (7) Hypertrophy of the cavernous tissue of the inferior turbinate in plethoric subjects, usually the posterior end. (8) Hypertrophy of the anterior end of the inferior turbinate. (9) Persistent hyperemia of the middle turbinate, usually the interior end. (10) Acute suppuration of the middle ear, rarely associated with infectious diseases. (11) Fibromata, both intranasal and nasopharyngeal. (12) Fracture of the base of the skull (13) Fracture by direct trauma of the septum. (14) Telanpiectasis. (15) Foreign body in the nose.

Constitutional Causes: (1) infectious fevers. (2) Poisonous doses of phosphorus and lead (3) Plethoric states associated with the portal conjestion and atheromatous arteries; kidney, liver, cardiac and other diseases. (4) Onset of puberty. (5) Vicarious menstruation and menopause. (6) Sudden changes of climate, especially rapid variations of pressure.

Treatment—Locate the source of the bleeding by anterior rhinoscopic examination. To check bleeding, irrigate with a 2 per cent. solution of calcium chlorid; insert light tampon of adrenalin chlorid solution with 2 per cent. cocaine solution. After locating the bleeding point, touch with phenol or chromic acid, full strength. Never plug the nares unless the hemorrhage cannot be controlled in any other way. Remove the cause, if possible. Before attempting to remove the cause, give calcium lactate for a few days.

Medical Treatment of Diabetes.

Smith in the London Practitioner in 1907 had under treatment a very intractable case of this malady, complicated by ulcers of the leg and vulva. After trying many of the usual drugs he ordered iodide of calcium in five-grain doses thrice daily, and coincidently the patient's ulcers began to heal and the sugar was gradually reduced in three months from 8 per cent. to ½ per cent. At the same time the patient felt much better

in her general health. Later on she had a relapse, which yielded under the same drug; ultimately the percentage of sugar fell after five months' administration to ¼ per cent. and the patient is still in good health with no symptoms which trouble her. Encouraged by this result the author has treated sixteen more cases in the same way, with almost exactly similar results as far as the percentage of sugar is concerned. The largest dost which has been given is fifteen grains three times a day, and many of the cases had previously been treated with codiene and other anti-diabetic remedies without benefit. No claim is made that the drug will "cure" all cases of diabetes; but certainly a powerful claim for further experiment has been substantiated. It is particularly noteworthy that the wretchedness, depression, and feelings of "illness" which many diabetics suffer from are greatly relieved by the treatment.

Aluminum Acetate in the Treatment of Wounds.

Among other things used in the treatment of wounds, M. F. Waterhouse refers to the great usefulness of aluminum acetate solution. Burns are treated in his wards with dressings wetted with a 1-per-cent. solution of aluminum acetate, and for certain surgical purposes this is advocated as one of the best antiseptic solution, though it is unknown to most surgeons and practitioners. He states with assurance that the 1-per-cent solution of aluminum acetate is an admirable antiseptic which at the same time is non-toxic, non-irritant, and yet markedly astringent. It is not to be employed in surgical operations, as it spoils steel instruments; but as an antiseptic for moist fomentation of wounds that are infected or probably unclean, or as a medicament for a bath in which to place an infected hand or foot for cotinuous irrigation he recommends it strongly. It is used extensively upon the Continent instead of the comparatively weak boric acid solution so generally employed in England.

The common strentgh is that of 1 dram of the liquor aluminii acetatis of the German Pharmacopoeia (a 7½ per cent. solution) to 1 fluidounce of water. Experience shows that there is no danger of poisoning from it, even when a crushed arm or leg is bathed in the solution for a month, and it is stated with confidence that by the employment of continuous irrigation by means of a bath of the 1-per-cent. solution, pyogenically infected hands and feet, which but for the action of the solution would have dermatitis whatever its cause, for suppurating open wounds, and for cutaneous erysipelas, much is to be said for the favorable results obtained. There is one objection that may be mentioned, and that is that after three weeks continuous irrigation of a member such as the hand the surface tissues may assume a ligneous hardness, so that they can scarcely be cut .

Waterhouse adds some important remarks upon the circumcision of infants in this connection. It is, as he says, one of the most frequent operations that the practitioner is called upon to perform. He refers to the results obtained, and says that one cannot honestly state that they have always been satisfactory; that there has not very frequently been hemorrhagic effusion under the sutures, sepsis, or some other troublesome complication. To avoid these he advises that half an hour prior to the operation the entire penis be painted by the nurse with a 2-per cent solution of iodine in rectified spirit; as the child is being anesthetized the organ is repainted. The prepuce is now removed distal to a Kocher's artery forceps applied obliquely from above downwards and forwards; the inner lining of the prepuce, having been slit up along its dorsal aspect, is cut short, only about one-eighth of an inch being left. Two sutures are now inserted; one connects the skin and inner lining in the region of the frenum, the other the same two above on the dorsum of the penis. A Turkey towel-ing-sponge, four inches square, is now perforated in its center in order to allow the penis to pass through the opening; this ensures the organ being kept a fairly vertical position. A couple of feet of double zinc syanide gauze are now rolled loosely round the incision and are wetted with a 1 per cent .solution of aluminum acetate, the nurse being instructed to keep the dressing wet by moistening it hourly with this solution. It is claimed that if ordinary aseptic precautions are obeserved during the performance of the operation the common haphazard results would be very much improved, and that in at least 96 per cent. of cases healing would be by first intention.—Hospital, London.

The Talma Operation for Hepatic Cirrhosrs.—Crede remarks that the reports of surgeons concerning the results of this operation are not very favorable. His experience has been somewhat similar to that of others. In his last case, however, he proceeded more radically than is the custom, in the belief that the failures were due at least in part to the fact that after the operation as generally performed the new blood vessels were neither large nor numerous enough to provide the required compensatory drainage. He wounded the anterior surface of the great omentum with the scissors for an area almost equal to that of his hand, stripped the peritoneum from the belly muscles over a corresponding area, and then united these bleeding surfaces with mattress sutures. By the end of four weeks a number of good-sized vessels must have developed, for from that time the secretion of fluid in the belly cavity visibly lessened. The operation took place on November 2nd. Paracentesis was necessary

once a week, and between the date of operation and 7th December the respective amounts of 7,500, 7,000, 4,500, 5,000, and 5,000 gms. of fluid were removed. Thenceforth the general condition materially improved. The patient was again tapped several times, but at longer intervals, the last being on 16th January. The liver dullness is now about normal and the patient has (by May 2nd) gained nine pounds. He looks bright and healthy, his digestion is excellent, and he has returned to work.—Berl. Klin. Woch.

Treatment of Epistaxis.—In the Australasian Medical Gazette Boyd describes a simple method of plugging the nares for obstinate epistaxis which had resisted the usual routine of compression, cold or iced douching, smart purgation, and anterior plugging. He very truly remarks that the operation of posterior plugging as commonly performed is very unpleasant to the patient, and that it requires special instruments, which are nine times out of ten not procurable in an emergency. The plan he recommends is easily and quickly followed, and requires only strips of clean muslin and a pair of dressing forceps; it is said to be almost as efficient as Rose's bag, and hardly more than inconvenient to both patient and operator. A dry piece of fine-starched muslin about six inches square is wrapped round the poits of a closed pair of dressing forceps, by placing the latter in the centre of the square and then folding the muslin round the blades umbrella fashion. This is then passed through the nares until it impinges on the posterior pharyngeal wall; the forceps is then withdrawn. The edges of the muslin are spread out over the face, and the hollow cone inside the nose is rapidly plugged with small pieces of cotton wool soaked in any available styptic-vinegar in default of the more usual astringent drugs. If—says the author—it is not necessary to plug the post-nasal fossa, tee muslin can be pulled very sliphtly forwards after the withdrawal of the forceps, so as to clear the posterior wall of pressure before the plugs are introduced. This is worth bearing in mind, as it avoids the temporary deafness otherwise set up.—The Hospital, London.

The Treatment of Cancer.—F. Durante goes over all the methods for the treatment of cancer without surgical operation that have been advocated in modern times, and finds them all wanting as far as a radical and permanent cure are concerned. Among the methods of treatment that are considered are the biochemical methods, the use of erysipelas germs to combat the cancer tissues, as proposed by Coley, cancer vaccines. serotherapy, the x-rays, radium, and fulguration. Not one of these agencies which have at first promised such good results has stood the test of time. The growths have gone on developing after being retarded in some instances for a time, or recurrences and metastases have taken place. Those cases that have seemed to be permanently cured he refers to incorrect diagnosis. The superficial epitheliomata are easily influenced by several of these remedies, but the deep carcinomata are unconquerable by any of them. He denies the selective action of rays and fulguration on the cancer cells, while he admits that physical methods act as a strong stimulus on cellular reproduction, disorganization of protoplasm, and molecular degeneration, when they did not produce an eschar.—Il Policlinico.

Bruits Heard Over Manubrium Sterni in Children.—Sawyer (Brit. Jour. Child. Dis.) describes the bruits heard over the manubrim sterni in sixty-five children between two and a half and eleven and a half years of age. They were heard most often in children between the ages of four and nine. In all cases except one the bruit was louder in the neck than over the sternum. It was found that in all cases in which a bruit could be heard over the sternum it was audible in the neck, and that a bruit was often heard in the neck when the head was bent back without it being audible over the sternum. The conclusions arrived at from these facts are that in many children a bruit is produced in the internal jugular vein by the head being bent back and that it depends upon the loudness of the sound whether it can be heard over the sternum. Granting that the bruits arise in the internal jugular veins it is easy to understand how they are produced. Bending the head backward puts these veins on the stretch, and causes them to be compressed against the transverse processes of the lower cervical vertebræ. The sternomastoid muscle also compresses them, for it becomes very tense when the head is thrown back in the position required for the examination. The sternohyoid, sternothyroid, omohyoid muscles, and even the platysma may help in this compression. The stretching of the vein and its compression must diminish the size of its lumen over a certain portion, and therefore a condition is produced in the vein which is likely to give rise to a bruit. That the bruit is produced in this way is also supported by the fact that when the chin is directed to one side a bruit often appears over the side which is on the stretch. A bruit can often be made to appear in this way when previously it did not exist with

the chin in the middle line. The venous hum over the sternum in children with the head thrown back appears, from these observations. to be a normal condition in the great majority of cases, and should be considered to be of no importance unless accompanied by physical signs of compression.

Quinine in Syphilis—French (British Medical Journal)says that in 1905 the subject for the triennial Alexandra Memorial Prize, open to army navy surgeons, was "Syphilis in the army and and its influence on military service; its causes, treatment, and the means which it is advisable to adopt for its prevention." The essay was submitted by Major French under the title "Syphilis in the Army." The Doctor stated: "Quinine in dilute acid solution is often most valuable as a precedent to, or follower of, the first mercurial course in cachectic cases. Where it exerts a specific action on the spirocheta of syphilis, as on the malarial parasite, is uncertain, but he thinks it should be invariably given if there is an associated malarial history or syphilitic fever. Such fever is common with the onset of rash, and in the later stages with scepticemia is due to necrosing bone or other tissues. As early syphilis is associated with a loss in numbers of the red blood corpuscles and in the amount of the hemoglobin in those cells, quite possibly the chief action of quinine may be in overcoming this degenerative action, and thus assisting the blood to be better deal with the inroads of the virus in the early and more remediable phases of the disease by increasing its phagocytic power, or by the formation of antibodies. Further, any drug which tends to reduce the number of spirochætæ in the blood in the early stages will consequently lessen the amount of toxin which can later injure the central nervous system and cord.

Chondroma of the Mammary Gland.—Davidsohn (Zentralblatt fur Gynakologie) reports the case of a woman, aged fifty-one, from whom the right breast was removed for cancer and at the same time from the left breast a tough circumscribed growth the size of a cherry, which shelled out easily. On cutting sections of this and staining them with Kresyl-violet, the growth under the microscope, proved to be a true enchondroma with characteristic cells and a stroma of pure chondrin. No cancer cells, glandular elements, nor connective tissue were present. According to Virchow cartilaginous tumours, both single and multiple, are common in the mammæ of the dog, but he agrees with Birch-Hirschfield and Ribbert that they are uncommon in the human mammary gland. The last observer considers that chondroma is always part of a mixed growth. The Doctor points out that on embryological grounds it is not surprising that cartilaginous new growths are uncommon in the mammary gland, and advises extreme care in the staining of sections of growths, especially when of doubtful appearance. In this case chondrin was detected which, but for these precautions having been taken, might easily have escaped notice.

Tenotomy in Fracture Cases.—Thomas (Liverpool Medico-Chirurgical Journal) pleads for the more general adoption of tenotomy of the tendo Achillis in certain fractures of the lower limb. First of all he very rightly lays stress upon the importance functionally of obtaining complete correction of deformity in all fracture cases. A very slightly deformed tibia may be many months before its possessor can put his full weight on it and do his full work. The Doctor mentions four particular fractures in which the avoidance of deformity is especially difficult; through the lower end of the femur, oblique fracture of the tibia, fracture of the tibia and fibula low down, and fracture of the os calcis. In the least troublesome of these cases success often attends MacIntyre's and Roughton's splints, double incline planes, and stirrups extensions; but in severer cases all these often fail, and for these the alternatives are wiring, screwing, and tenotomy. After an experience of fifteen cases the author speaks very highly of this method of throwing the gastrocnemius out of action, and thus preventing it from pulling on the fragments. The method is a very old one, and he is anxious to rescue it from undeserved neglect and oblivion.

Danger Due to Substitution.

Hardly another of all the preparations in existence offers a wider scope to imposition under the pea of "jnst as good" than the scientifically standarldized Eucalyptol.

The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proved injurious upon application, the firm name of Sander & Sons is llicitly appropriated, the make-up of their goods imitated and finally the medical reports commending on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit.

This fraud, which was exposed at an action tried before the Supreme Court of Victoria at elbourne, and others reported before in the medical literatsur show that every physician should see that his pate ent gets exactly what he prescribed. No "just a-good" allowed.

Treatment of Lupus.—Lang, in the (Deut. med. Wochensch., reported his experiene with the operative treatment of lupus, which he has found to produce excellent results within a short time. Of 308 cases which were kept under exact control, 276 were permanently cured by operation, including excisions and flap transplantations. In some of these the lubus was of large size and in some of long duration, up to eighteen years. Zinsser, of Cologne, advised the Ginsen light in true cutaneous lupus without involvement of the mucous membranes, and stated that it effected a cure in almost every instance, with soft, almost invisible scars. The Dr. considered Roentgen treatment of limited value owing to the difficulty of dosage, but radium as an ideal treatment for isolated nodules. The preliminary use of pyrogallic acid was of value in cases of modern sized lesions and might be advantageous in connection with the Roentgen ray in cases where the process was extensive.

Anaesthetics and the Leucocytes.—(Academie de Medecine) Achard read an interesting paper on the effect of anæsthetics upon the leucocytes of the blood. According to the writers observations both ether and chloroform administered in the ordinary way have a paralysing effect upon the activity of these white corpuscles, and in cases in which the administration has been prolonged to an hour or more their activity is almost completely abolished. This paralysing effect is only transitory and passes off in the course of 24 hours, but it persists for some time after the patient has recovered from the anæsthetic. He suggests that this phenomenon indicates that anæsthetics exert their influence upon the whole organism, even upon those cells which are independent of direct influence from the nervous system, and harmonises with the fact that in spite of the rapidity of their action anæsthetics are only eliminated slowly from the system. The auther says further that this paralysing effect of anæsthetics upon the leucocytes may in some measure account for certain post-operative sequelæ, such as infection of the respiratory or digestive tracts owing to the consequence diminished resisting power of the organism.

Prophlyaxis of Puerperal Infection.—Bertino (Folia Gin.,) has made personal researches as to the posibility of lessening the occurrence of puerperal infection by the removal, from the vagina after labor, of clots which are liable to become foul from bacterial action, and may assist in producing infection. The Dr's. statistics are based on 526 cases delivered in which the clots were wiped away, after labor, with a sterilized tampon. If such women be examined a few hours after labor their will always be found coagula in the vagina; they may be lacking in multiparæ with wide open vaginas and in such as have prolapsed uteri. The administration of ergot and massage to cause uterine contractions are not always sufficient to remove these clots. It is not often possible to allow the woman to sit up a few hours after labor in order to favor the descent of these clots. Vaginal irrigations with physiological salt solutions or antiseptic injections for their removal have not been shown to thoroughly remove them or to diminish the frequency of puerperal infection. The removal of the clots with swabs of cotton or gauze has a favorable influence in preventing fever, its assistance being partly due to the antiseptic power of the sterilized gauze. These coagula are soon the source of bacterial infection, which is shown by bacteriological examination a few hours after labor. The most frequently found bacteria are the facultative anerobic forms, especially. No micro-organism of pathogenic nature was ever found in these clots.

Useful Remedy for the Heart.—"The great bulk of clinical evidence leaves no doubt that Cactina Pillets is an eminently useful remedy for the heart when properly indicated and properly applied. At any rate, the wealth of facts gleaned from practical bedside experience cannot fail to stimulate the interest of every open-minded phyiscian who is striving constant to accomplish the best possible results in the best possible way.

Congested Portal Circulation.—"Chionia acts purely as an hepatic stimulant, and produces a therapeutic action on the liver that cannot be produced by any other remedy in the Materia Medica—never causing nausea or nervous prostration, which so often follows efforts to remove the congested condition of the portal circulation by the severe hepatic remedies."

Diseases of Women.—"In disordered conditions of the liver, indigestion, intestinal atonicity and neurasthenia, the effects of Prunoids is most beneficial. In diseases of women, particularly those occurring at puberty or the climatic, and in connection with the menstrual function, Pruoids are markedly efficient as a safe and thorou; laxitive."

Primary Suture of the Lungs After Injury.—Wolf (Beitrag. z. klin. Chir.)records a case of rupture of the left lung from violent compression of the chest operated on eight hours after the injury. A rent, 4

to 5 cm. long, was found in a lower lobe and closed with three deep catgut sutures. After evacuation of the blood from the pleural cavity and reposition of the fifth rib, which was fractured in two places, the bony fragments were united by a few catgut sutures through the periosteum and the wound closed without deep drainage. A cure resulted in thirty-seven days. From experience in Trendelenburg's clinic in cases of gunshot injuries and stab wounds of the lung, The Dr. says that the chief point in the treatment is to arrest hemorrhage as completely as possibly without resorting to tamponade of the pleural cavity. The indications for operation are signs of increasing hemorrhage in the pleural space, as evidenced by pallor, cyanosis, difficult breathing, small, frequent pulse, anxious expression, etc. Hemoptysis is very frequently absent. If after the subsidence of the first signs of shock threatening symptoms are found absent, and expectant policy may be pursued with constant subervision of the patient, as exploratory thoratomy is as yet more dangerous than an exploratory laparotomy for abdominal injury.

Euphthalmine in Cataract.—Dufour (Revue medicale de la Suisse Romanda) describes a new use of his mydriatic. In many cases of cataract, central opacity of the lens precedes cortical involvement. If the pupillary aperture be narrow, as is generally the case in the aged, vision is greatly interfered with by such central opacity which blocks the entire pupil, and where the condition is bilateral, the patient is unable to read or write. The operation of preliminary iridectomy, usually performed under these circumstances, may, in certain instances be imposible, either on account of general disease contraindicating operation, or because of opposition to the performance of the operation on the part of the patient. For several years the author has successfully used euphthalmine hydrochloride, which, by its mydriatic effect, permits vision through the uninvolved cortical portion of the lens. In the use of euphthalmine no untoward effects have been observed. Intraocular tension is not affected, accomodation is but rarely and very slightly influenced and there are no secondary intoxicating effects. Sometimes there is a slight burning sensation of the conjunctiva in the first half minute or so after instillation. Mydriasis begins in twenty minutes and last four hours with the 3% and seven hours with the 5% solution. To avoid the dazzling effect from the increased admission of light, the patient's ordinary glasses may be colored blue or greenish yellow. The drug must not be used after 6 p. m. One or two drops after brekfast enable the patient to read in the morning, and one or two at noon, in the succeeding afternoon hours. By this procedure persons previously debarred from all work, may, in part at least, resume their former occupations, a moral and economical advantage of the greatest consequence.

Epidemiology of Whooping-Caugh.—Guerassimovitch (Prakt. Vratch.)has written an article on this subject, which is well reviewed in the Semaine Medicale. He has been struct with the fact that of 25 children exposed to 2 cases of whooping-cough for 16 days not one took the disease. This is quite in accordance with the observations of Perret and Givre, who, dealing with a ward in which whooping-cough cases were admitted with the other patients, found that of 302 children only 2 contracted the infection Again, Weill noted that 93 children, all susceptible, who were in frequent contact with 15 patients in the paroxysmal stage of whooping-cough, all escaped infection.This goes far to prove what some of us have been teaching for some years—that after the paroxysmal stage is fairly started the infectivity of this disease is extreamely low. Corroborative evidence of the bacteriological nature is not wanting. The bacillus of Bordet and Gengou is very difficult to find after the first week of the paroxysms, and it would appear unnecessary to isolate whooping-cough patients when this period of the disease has been reached.

Guerassimovitch considers that adults play a considerable part in the dissemination of the disease. He admits that direct contact is the usual method of transmission, but points out that children not infrequently contract the infection although they have not been exposed to any infected child. The explanation is that the illness can run an abortive or latent course, and, particularly in adults, the whoops may be altogether wanting. The older patient the less likely is the disease to be characteristically developed, and most frequently a definite diagnosis can only be made after the attack when younger members of the family suffer from more typical paroxysms. Guerassimovitch gives some most interesting examples of parents and others suffering from this modified form of whooping-cough, the symptoms mentioned being coryza, dry, painful cough of a paroxysmal nature, but not characterised by the usual stridorous inspiration, and a tendency to vomit. It is certainly quite possible that many cases of the disease in adults are missed, and we can agree with the author that, as in mild unrecognized scarlatina or ambulatory ty-

phoid, a considerable amount of mischief can be done by the patient.—Edinburgh Medical Journal.

Correction of Deformity Following Arthritis of the Hip-joint.—Rowlands in the London Medical Lancet states that a good deal can be done to improve the condition of those patents who are the unfortunate victims of deformity and shortening, in the absence of active disease of the hip, by subtrochanteric osteotomy and division of some of the tight adductors. This allows the correction of the flexion and adduction. Occasionally the fascia in front of the hip may require subcutaneous division. If the femur be divided obliquely, it can be appreciably lengthened by sufficient and well directed extension. The ordinary extension stirrup is applied 24 hours before the operation. Through a small incision below the right trochanter the femur is divided. The section runs obliquely downward and outward from just below the neck of the femur, and thus well away from the old disease. The adductors are divided subcutaneously to the extent that is necessary for the over-correction of the deformity. The extension is then applied in the following way. When the right hip is the diseased one, the pulley for the weight extension is fixed at the right lower corner of the bed, while the pelvis is kept near the right border by means of broad straps. A well-padded perineal band extends from the left side of the perineum to the left upper corner of the bed. In this manner the adduction is over-corrected. To diminish the pressure of the perineal band and to make use of the body-weight, the foot of the bed is elevated. To correct the flexion the pulley at the foot of the bed is placed as low as possible and the right lower quarter of the bed has no mattress, so that gravity tends to straighten the limb. This treatment is continued for about three weeks, when a plaster spica is substituted. About twelve weeks after the operation the patient is allowed to put some weight on the foot; but care must be taken to delay this as long as possble on account of the risk of bending at the union.

Independent vs. State Journals.

A few years ago when so much agitation arose in the medical ranks, state and association journals were apparently in the ascendency while independent journals were for a while on the run, and not a few joined the down-and-out bunch. Things begin to look better now, and there is a perceptible rift in the skies. The independent journals that had the grit to stick it through have better prospects ahead of them now. The Council of Pharmacy is not so busy at present and a good many other things have cooled off considerably. The independent journals are getting erstwhile advertisers back, and the subscription list is ever growing. But while this is true of the independent journals, what can we say of the once haughty state journals? A late exchange of this class lies before us. Its first and leading editorial is a plea to subscribers to get busy and write for samples and thus boost its advertising department, or otherwise it cannot exist. The editorial is almost pitiable in its implorings and reminds the reader copiously that it is his journal. The article is preceded by this little heart-rending appeal: "Please. *Please*, PLEASE read the editorial notes in this issue which refer to advertising and advertisers—and not only read them, but also think about them—and then act. It is just as important for you to regard with serious interest this matter of advertising as it is for you to consider any other matter connected with your Journal. And just remember, please, that it is your Journal."

We believe that physicians should write for samples and patronize the worthy products advertised in medical journals. No journal could exist without advertising patronage. But we believe there is something radically wrong when a publication is put to the extremity of making such a doleful appeal for support. Have you ever noticed any independent journal which has resorted to such tactics? No, before going down on its knees to its readers in such an attitude of supplication, it quietly and without a death-struggle simply gave up the ghost.—Medical Summary.

Senna as a Purgative.

Much good work has been done by the study of the effect of the different purgatives upon the digestive tract by means of X-ray observations after a bismuth meal. Hertz, of Guy's Hospital, was one of the pioneers in this work, and his observations on the normal rate of progress of food through the stomach and intestinal tract and of the variations under different conditions are already well known.

More recently E. Stierlin has investigated the effect of senna as a purgative by the same method of observation. His subjects for observation were three boys, aged eight, nine, and fifteen years respectively. The first thing in the morning 20 Gm. of bismuth carbonate were given in 400 Cc. of warm water. The first meal was given two hours later and afterwards the usual meals during the rest of the day. Radiographic observations were made at intervals of two

hours during the day. In the evening a soap-and-water enema was given and followed by a black stool. Two days later the same proceeding was repeated, but half-an-hour before the dose of bismuth carbonate 10 Gm. of marcerated senna pods were administered, and another 20 Gm. at the same time as the bismuth dose. By comparing the two series of observation the author found that the senna only affects the peristaltic movements of the large intestine. It has little or no effect upon the movements of the stomach and small intestine. As soon as the senna reaches the cecum and ascending colon it produces a complete evacuation of almost the whole contents of the colon, and this evacuation is repeated several times as long as any senna remains in the large intestine. The author therefore concludes from these observations that senna is an ideal purgative, causing, as it does; a complete evacuation of the lower bowel.—The London Hospital.

The American Public Health Association

The next meeting of this Association will be held in Havana, Cuba, December 4 to 9, at the Academy of Medicine, the use of which has been offered to the association. The changed situation in Cuba in reference to yellow fever is shown by the fact that, whereas a few years ago it would probably have formed the chief subject of discussion, the most prominent place on the program will be given at this meeting, on the request of local physicians, to tuberculosis. The question of the mild supply will also be considered.

Miscellaneous.

The Tuberculous Gland. Its Significance and Treatment.

Dr. Philip, in the Medical Lancet states that suppuration is merely an incident; a relatively uncommon accident in the course of progressive involvement of the glands by tuberculosus infection. Far more common is in the infiltration in varying degree. Dr. Philip follows out the course of tuberculosus infection, speaks of its relation to childhood, and then passes on to treatment. This should be directed chiefiq to the essential lesion rather than to the incidental occurrence. The ordinary surgical treatment is of local and partial value. Superficial lesions are indeed removed but the infection is deeply seated in the lymphatic system and only some general measure will meet the emergency. Here the outlook for vaccine theraphy with tuberculosis is most encouraging. He details his experience with it cautioning against too large a dose at first. The author's conclusions, drawn from prolonged observation and treatment of such cases are thus given: (1)—Watch for the earliest indication of spreading involvement of lymphatic glands in young children. Especially have regard to the distribution downward from the extra-tonsilar gland into the supra-calvicular triangle. (2)—Regard such a process as of an almost certainly tuberculous nature. If in doubt make use of the tuberculin test. (3)—Treat as soon as may be with tuberculin as indicated at the same time carefully cleansing the throat and correcting faulty environment. (4)—If incidentally one or other gland suppurates simply evacuate, continuing the use of the tuberculin.

Treatment of Syphilis With Ehrlich-Hata's New Preparation of Arsenic.

Hoffman, in the London Medical Lancet, states that the development of this new method of treatment is based on the results obtained with atoxyl. Ehrlich first replaced the dangerous artoxyl with arsacetin, replaced this with arsenophnylglycin, and finally this with dioxydiamidoarsenobenzol, or 60 which has a remarkably quick eliminating effect on human syphilis even after a single injection, according to several authors. The Doctor is in doubt whether a single injection heals the disease, but admits that in a number of his cases he was unable to find spirochaetae three days after injection. He noticed clinically that anginae, mucous patches, and papules often disappeared without any local treatment, as well as indurated glands and the initial lesion. In one case of malignant syphilis and in one of a tertiary, ulcerating syphilide of the face he met with a strong reaction the day after the injection. The four cases he reports are so remarkable as to deserve mention. Case I. Congenital syphilis with syphilitic ozaena in a boy, fifteen years old. The symptoms presented were severe headache, unbearable foetor, exophtalmos, and paresis of the abducens. Injection July 7th, of 0.3 gramme of 606. The symptoms disappeared almost immediately, and there was a great subjective and objective improvement, but the strong Wassermann reaction was unchanged on July 23d. Case II. Female, 34 years old. Tertiary ulcerating syphilide of face involving nose, right cheek, upper and lower lips. Wassermann reaction strongly positive on July 12th, injection of 0.3 gramme of 606 with a very strong local reaction on the following morning. August 1st, perfect healing with the exception of the infiltrated border. Wassermann's reaction mildly positive on July 28th. Case III. Female, 34 years old. Secondary syphilis; universal popular exanthemea, involving even the palms and the soles, proliferating paples on the genitals and patches in the mouth and on the tonsils. Injection of 0.3 gramme of 606 in acid solution May 24th, followed by fever for four days. On June 6th, exanthema just visible, papules and patches gone. Case IV. Male, 40 years of age. Ulcerating gummata of tongue and scrotum, ulcers in the left angle of the mouth for four years. Injection of 0.3 gramme of 606 followed by a high fever and pleurisy due to an embolic central pneumonia. Finally, this author considers

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this new remedy very valuable in cases of mercury and iodine idiosyncrasy and as a preventive.

Spontaneous Rupture of the Bladder in a Pregnant Woman of Three Months.

Martin, (Annales d'Obstetrique et Gynecologie) records a case of this very rare accident. The Doctor was called to see a case that had been diagnosticated as one of retroverted gravid uterus by a colleague. The patient a primigravida aged 25 years, had for a few days been troubled with frequent micturition, passing small quantities. She retired to bed feeling well, but at 1 a. m. was suddenly seized with acute pain after urinating. When first seen she had pinched facies, rapid and small pulse and marked abdominal distention. An immediate laparotomy was decided upon and the patient removed to the hospital. The abdomen was opened by a 12 cm. median incision and urine escaped immediately on incising the peritoneum. There was about 2½ litres of urine in the abdominal cavity and a laceration 4-5 cm. long found in the urinary bladder. The peritoneum was dried, the patient raised into the Trendelenburg position, and the tear in the bladder sutured in two layers by catgut. The first layer passed through the entire bladder wall, the second ensuring peritoneal apposition. The uterus was replaced by vaginal tamponade, as the author does not believe in suspensory operations on the gravid uterus. The bladder was drained by catheter. There was some pyrexia for a month due to pyuria from a cystitis or pyelitis. The patient left the hospital well at the end of six weeks, and at the time of the report was eight months pregnant.

Calcium Permanganate.

Stephens, in the Dublin Journal of Medical Science, details his experience with a compound he has been recently trying, calcium permanganate. This substance occurs in purplish delinquent crystals, readily soluble in water. The drug has, however, a most unpleasant taste and is therefore best ordered in capsules. The crystals, it must be borne in mind, readily attack the skin owing to their deliquescence, and must be handled carefully. For gastritis and gastric ulcer the Doctor uses ¼-grain doses, and has had some remarkable successes in case which seemed so desperate that even gastroenterostomy was held to be contrainidicated; and in less severe cases he has been able to restore to complete health patients for whom this measure had been advised. For enteritis and colitis also it has, he thinks, considerable value. Empirically it has also been found useful for cases of malaria, and although the number of cases treated is small, yet the author is convinced that in this drug a valuable addition to the Pharmacopoeia exists. As a local application it is recommended for rodent ulcer, inoperable offensive carcinoma, and similar conditions.

Nutrient Suppositories.

Boas (Berl. klin. Wochenschr) says that the comparative uselessness of nutritive enemata has led him to suggest replacing them by nutritive suppositories, consisting of crystallized egg albumin, dextrin, salt and cocoa-butter. If these suppositories are made two and a half inches long and half an inch in diameter, they will contain a little over 46 calories. Four or five of these suppositories can readily be introduced daily, so that the patient receives some 230 calories. This, of course, does not represent a sufficient nourishment, but it is greatly superior to anything that can be attained by means of nutritive enemata. In addition, the necessary water must be supplied by means of two saline enemas daily of a pint each. The suppositories are well tolerated and represent a distinct advance in rectal alimentation. Both crystallized egg-albumin and dextrine are readily obtainable from dealers in chemical supplies.

Transmission of Vocal Vibrations in Pleural Effusion.

Livierato, (The British Med. Journ.) discusses the problem of the preservation of vocal fremitus and breath sounds in spite of the presence of pleural effusion. The condition is, of course, well known, and the chief current explanation of the pheuomenon is that it is due either to the presence of bands between the lung and the thoracic parietes which act as bridges to conduct the vibrations, or to fixation of the lung by adhesions. Neither of these explanations are complete satisfactory to the author, and for some time he has been making clinical, pathological, and experimental researches with a view to elucidation of the problem. The author's clinical material comprised 127 cases of pleural effusion, 7 necropsies, and certain experiment on dogs. In the last case the writer injected 250 c.cm. of serous fluid into the pleuarl cavity of dogs and observed its effects. As a result the Doctor maintains that an important factor—and sometimes the only factor—in causing the persistence of vocal vibrations in pleural effusion is the pressure of the fluid of the lung, rendering the pulmonary tissue firmer and more compact. This greater firmness of the lung can sometimes be detected by the needle in paracentesis. The Doctor corroborates the value of limted bands of vocal vibrtion areas in the diagnosis of loculated pleurises, and thinks this may well be due to the presence of sound-conducting bridges of adhesion bands. The author finds that the increase in vocal vibrations in these cases varies directly with the specfic gravity, the albuminoid and corpuscular elements in the containing fluid.

Adenomyoma of the Inguinal Portion of the Round Ligament.

Lecene (Ann. de Gyn. et d'Obst.) describes a case of adenofibroma of the inguinal portion of the round ligament, in which the tumor, small in size, was developed in the thickness of the abdominal wall, near the deep orifice of the inguinal canal, and fused with the walls of this canal and of the ligament; a divertic ulum of the peritoneum was adherent to it. It contained within its fibrous masses pseudoglan-

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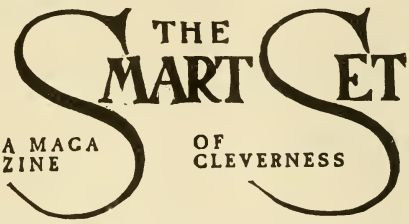

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dular epithelial formations analogous to those seen in adenomyomata. The Doctor finds record of only ten similar cases in lierature. Adenofibromata of the round ligament are not large ,varying in size from that of a nut to that of a hen's egg. They may be unilateral or bilateral; they are situated anywhere in the inguinal canal and are remarkably adherent to the surrounding tissues, never being encapsulated; the color is white to rose red, and they contain cysts, the fluid of which is dark; this is due to their vascularity and the result of slight traumatisms to which they are exposed by their situation. They consist of a very vascular connective-tissue framework, enclosing semi-glandular epithelial formations which have a subjacent chorion lined with epithelium. The origin of these tumors is referred by the author to the remains of the canal of Wolff. Clinically they are tender, contrasting with simple fibromata of the ligament which are not so; this tenderness is increased at the menstrual period. The treatment should be removal.

The Hygienic Planning of Schools.

Robson (Journ. of the Royal Inst. of Pub. Health) discusses the questions of sites, playgrounds, entrances, lighting of class-rooms, halls, cloakrooms, heating and ventilation, and general sanitation. The Doctor barely touches upon the questions of clothing, feeding, and washing of the children by the State, rightly regarding these as matters of economics; but he does suggest that washing, spray bathing, and certainly swimming be made a matter of regular drill. "The ideal school should be an education in itself in orderly planning, in proportion, and in general ideals. To build schools like glaciers in angularity and eccentricity, or resembling barracks in their bareness is to deprive the children of what rightly may be called their birth-right of beauty."

Intravenous Bichloride Treatment of Peurperal Infection.

Barsony (Obstetrique) believes intravenous injection of bichloride of mercury, which he has been using for this purpose during the last six years, after nine years of tentative administration. In well-established peurperal infection he injects 0.005 gm. of the bichlorid and if the temperature keeps up, he repeats the injection the same day. The injections are suspended at the slightest sign of intoxication and resumed, with a smaller dose, when these symptoms have subsided. The healthy organism cannot tolerate the doses that infected individuals needs and tolerate perfectly. In one desperate case he made 28 injections, representing 0.138 gm. of the bichlorid, in the course of 16 days and the woman recovered. Kenezy made an intravenous injection of 0.02 gm. by mistake in two cases but without harm. The Doctor discards all local treatment except weak antiseptic vaginal douches, never using the bichlorid for this purpose for fear of cumulative action. The number of red blood corpuscles increases in normal and febrile pregnant women under the influence of the injections. On one case of puerperal sepsis the reds numbered only 1,200,000 with 20 per cent. homoglobin, but the woman recovered. A 2 or 5 per 1000 solution of the mercuric cholrid in physilologic salt solution for intravenous injection and 1 or 0.5 gm. potassium permanganate for the vaginal douches are all that is necessary, with two visits a day and careful supervision of the action of the drug. In a total of 2,736 obstetrical patients in the last few months only two women succumbed to puerperal infection and they had pre-existing pyosalpinx. The results in general have been so satisfactory that he has decided to future to make a prophlactic injection of 2 mg. in all parturient patients and inject 3 mg. as a routine procedure before major gynecologic or obstetric operations.

Appetising Test Meals.

Curschmann (Muench and Wochenschr) has observed that the usual test-meals, whether Ewald's test-breakfast or Luebe's test-dinner, are often so unattractive to the patient, that an anacidity in the gastric contents results on account of the absence of the psychic element in the secretion of the gastric juice. We ,ourselves, have observed this phenomenon more than once, especially in dispensary work, and always insist that the test-meal be served in as attractive a manner as possible. The Doctor believes that, before an anacidity is diagnosed and is made the basis for a therapeutic regimen, the patient's stomach contents be examined after he has eaten a meal consisting of his favorite dish. Thus he has given test meals consisting of sparerib with sauer-kraut, beef a la mode with salad and the like, with or without wine or beer, and believes that such a policy would greatly diminish the apparent frequency of so-called anacidities. In anicidities due to achylia gastrica or other organic disorders, this procedure never influences the findings.

The Valuation of Fulguration in Gynecology.

Richter reports his results in using the Keating-Hart method of fulguration in 45 cases of pelvic cancer. Twenty-eight cases were treated once, 11 were treated twice, 3 were treated three times and 3 four times. The first cases were treated under chloroform narcosis, later wth lumber anesthesia, and finally without anesthetics. The immediate effect of the fulguration was relief of the pain, explained by loss of blood and reduced pressure, control of hemorhage, from the hemostyptic action of the spark, and cessation of suppuration. The final results of the experiments warranted the following conclusions: (1) From fulguration one cannot hope for lasting benefit, but the palliative effects are excellent. (2) As the spark may be used in breaking down cancer of the uterus without an anesthetic, the method is an improvement over cuaterization. (3) The fulguration relieves the pain for a considerable time, stops the hemorrhage and prevents the discharge. For these purposes it is best to combine it with the acetone treatment. —Munch med. Wochenschr.

Electrolytic Cure of Recurring Cancer.

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noma in the nasopharynx of a policeman about thirty-eight years old. The cancer was removed with apparent success but three months later there was a stormy recurrence with numerous metastases in adjoining glands on both sides of the neck. After curetting the growth, it was given electrolytic treatment and rapidly retrogressed under 13 exposures; there has been no trace of recurrence during the 2 years since. He applied a current of about 22 milliamperes for 10 or 15 minutes at a time, the sittings at intervals in the course of 6 months. A suspicious bunch was curretted away twice during the course of electrolytic treatment and the glands in the neck were operated on a month before the last exposure.—Deut. med. Wochenschrift.

Tuberculosis of the Intracranial Segment of the Optic Nerve.

Reye (Biological Section of the Hamburg Medical Society) reports the case of a boy twenty-one months of age who died soon after admission to the hospital under the symptoms of meningitis. The autopsy showed, besides tuberculosis meningitis, several conglomerate tubercles in the cerebral and cerebellar hemispheres, and caseated glands at the hilus of the lungs, a tubercular caseation of the intracranial segment of the optic nerve, and the larger portion of the chiasma. The severity of the destruction was very plainly visible in the microscopical preparations. It could not be positively ascertained if the disease had originated by way of metastasis or through propagation from the tuberculous meninges.

Dr. Reye points out that tuberculosis of the optic nerve in its intracranial segment represents a very rare exceptional observation; no more than four cases could be compiled from the literature.

Thyroidectomy and Lesions of the Laryngeal Recurrent Nerve.

Schloffer (Congress of German Surgical Society says that in thirteen cases of five hundred and five operations for goitre, he noted disturbances on the part of the recurrent nerve, of variable severity, sometimes causing dysphagia. These phenomena appeared not only during the manipulations in the vicinity of the nerve but also in the course of operative procedures at a distance, for example during the liberation of the goitre. Under all circumstanecs, ligation of the inferior thyroid artery is not devoid of danger for the laryngeal recurrent nerve and it is sometimes advisable to omit this procedure. Resection of the posterior capsule affords no protection against a lesion of this nerve.

The Sequelae of Extirpation of the Pituitary Body.

Aschner (Congress of German Surgical Society) says that inasmuch as the published finding in regard to ablation of the hypophysis do not agree, the Doctor proceeded to investigate his subject by performing the extirpation of the gland in a series of dogs. From these experiments it follows that the animals remain of small size, their genital organs do not undergo the normal development, and their sexual desire is retarded. All the signs of cachexia hypophysipriva are present. The pituitary body is not a vital organ, but it is necessary for the growth of the organism. From the therapuetic point of view, hypophyseal opotherapy is to be recommended in case of dwarfism.

-bosis heondu,

Contribution to the Study of Idiosyncrasies.

Beauchant (Le Progres Medical) says that certain individuals are distinguished by idiosyncrasies toward all sorts of foods and condiments, medicinal agents, insect-bites, and so forth, the peculiar reaction appearing in many cases upon a family or hereditary basis. These idiosyncrasies are expressed as urticaria, acute edema, or itching erythema, in the case of the skin. Other manifestations consist in asthma, acute edema of the larynx, migraine, painful crises originating from the gastro-intestinal canal, vomiting, articular swellings, neuralgias, nervous hyper-irritability, excretion of albumin, and fever. The entire clinical picture is encountered in an identical fashion as the expression of serum-sickness, after the injection of albumin foreign to the body. The same anaphylaxis exists also toward other substances, besides the albumins, in individuals with a special predisposition of the vascular nervous system. This is supposed to be referable to an insufficiency on the part of the thyroid gland.

Antimeningococcus-serum in the Treatment of Acute Gonorrhea in Women.

Le Masson (Annal. de Gynecol. et d'Obstetrique) states that favorable results from subcutaneous or intramuscular injections of antimeningococcus serum in gonorrheal arthritis, have been reported by Pissang and Chauvet. He accordingly tried the serum in a case of gonorrheal infection of the pelvic organs. The author's observation would seem to confirm from the clinical point of view, the analogy which has been assumed to exist between meningococci and gonococci, by the basteriologist. Furthermore, the case affords an illustration of the tolerance of the organism towards the injection of the serum. Finally, the rapid effect of the serum is manifested, for as soon as five days after the first injection the vaginal secretion had almost disappeared, and no gonococci could be demonstrated. At the end of two weeks, the local symptoms had ceased to exist.

An Early Sign in Intestinal Obstruction.

Wilms (Muench. med. Wochenschr.) states that if the abdomen is ausculated in conditions of active peristalsis, various rumbling and bubbling noises are heard, due chiefly to the bursting of air-bubbles as they rise to the surface of the fluid contents of the bowel. These sounds are, however, usually low-pitched and never have a ringing, metallic character. In ileus, however, even in the earliest stages, auscultation over the abdomen will reveal the presence of sounds of a clear, metallic, ringing character. The Doctor has found this sound pathognomonic of mechanical obstruction of the

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bowel. It occurs early in the disease, before fecal vomiting, meteorism or prostration has set in, is never absent in real mechanical obstruction, can be readily heard in the most obese patients in whom the early diagnosis of this affection is usually so difficult and with one exception is never found in any other condition. This exception is post-operative meteorism which can usually be otherwise distinguished from true mechanical ileus. Leuenberger, has investigated the phenomenon experimentally and finds it due to the bursting of tiny air bubbles in the bowel under conditions resembling those of intestinal obstruction. The sign is clearly a valuable addition to our diagnostic methods.

Scarlet Red for Stimulating Epithelial Growth.

Straus (Deutsche med. Woch.) thinks well of an 8 per cent. ointment of scarlet red for local application to granulating wounds. The first application is likely to cause some irritation together with increased secretion. A thin, gray-white film will form over the granulations. The results have shown a rapid healing of the wound, with the formation of a thick epithelium. The use of other antiseptics is not necessary and any fear that the stimulation of the epithelial proliferation may result in cancer has no basis in fact.

Fischer says that the active multiplication of the epithelial cells following the subcutaneous injection of scarlet red gave rise to a considerable overgrowth of epithelium resembling closely the histologic picture of carcinoma. These growths, unlike true carcinoma, degenerated rapidly as soon as futrher injections was discontinued. Other investigators, notably Helmholz, Schmieden, and Davis, have made reports on the effectiveness of scarlet red in the healing of old ulcers.

The Treatment of Optic-Nerve Atrophy.

Schultz-Zehden (Therapeut. Monatshefte) believes a carefully conducted course of mercurial treatment as very advisable in the management of atrophy of the optic nerve. It has never been shown, either by animal experiments or clinical observations, that mercury within therapeutic doses will give rise to lesions of the peripheral nerves, more particularly the optic nerve. When there is a history of syphilis, the mercury treatment should be instituted under all circumstances. Also in tabetic atrophy of the optic nerve, the mercury-treatment is indicated when syphilis can be demonstrated in the past; in the presence of a positive Wassermann recation; under favorable nutritional conditions, and sufficient physical as well as mental rest. Energetic injections and [illegible] will [illegible] doses of mercury should be [illegible] of the [illegible]

Lymphocytosis in Exophthalmic Goitre.

Bughler (Munch. Med. Woch.) says that in the blood examination of twenty positive cases of exophthalmic goitre, and a large number of the so-called "formes frustes" or abortive types, showed the almost constant presence of a relative lymphocytosis, both in genuine Graeys' disease and in pseudo-exophthalmii goitre. In doubtful cases, the examination of the blood may help towards the recognition of the thyreotoxic basis of the trouble, as indicated by a relative increase of the lymphocytosis. Thus the presence of lymphocytosis in a given case acquires considerable importance for the differential diagnosis. Meanwhile, the absence of lymphocytosis in a suspected case of exophthalmic goitre, or thyroid intoxication does not suffice for the exclusion of such a diagnosis.

Epidemic of Puerperal Fever Having as Its Cause a Normal Carrier of Streptococci.

Fabre and Bourret (Bull. de la Soc. d'obst. de Paris) describe an epidemic of puerperal fever which occurred after the finding of a case in which the lochia was found to contain virulent stretptococci, although the patient showed no sign of illness. Her temperature rose only to 38.8 C. on the evening before the germs were found in the lochia. From that day there was an increase of fever among the patients in the

hospital. In three weeks there were sixteen cases of fever, nine of which showed streptococci in the lochia. One case showed streptococci in the blood as well, and the infection terminated in death on the eighth day. The author accounts for the difference in the severity of the symptoms by the fact that most of the patients were infected several days after labor, while the one who died was infected on the day of her confinement, after the repair of a rupture of the perineum.

Epidural Injections in the Treatment of Enuresis and Essential Incontinence of Urine.

Genaro Sisto records a case of essential incontinence of urine in a girl of twelve years which was entirely cured by epidureal injection. Essential incontinence results from a lesion of the vesical center in some cases, as is seen in paraplegia and spina bifidhy. It may be spasmodic, the arce of disease including the peripheral conductor and the spinal cord, or of the nature of tic, when the cerebral cortex is implicated. We must carefully study heredity and local symptoms to determine which of these forms we have to deal with. Theoretically it is the traumatism to the canal that causes the cure. Practically we do not know the method of its action. The injections cause little pain and there is not any danger of injuring the cord, which separates into filaments that float loose in the cerebrosphinal fluid. The
[illegible]ection is made at the lowest part of the sac-
[illegible] triangular space between the sacral
[illegible]d two tubercles that are easily
[illegible]nt lies down for a half hour
[illegible]on. This is an area in which
[illegible]ge number of veins, and circula-
[illegible]rption of drugs from this part is
—Annales de Medecine et Chirurgie

[illegible]eeding in Gastro-Enteritis of Infants.

The least harmful ingredient of milk in gastro-enteritis is casein, and many cases are frequently benefitted by the addition of casein. The most usual cause is the acid fermentation of milk-sugar. The fat will be harmful only when this abnormal carbohydrate fermentation has already set in, while fat alone, given without sugar, will improve the diarrhea. An ideal milk, should therefore contain less sugar and salts, but sufficient casein and fat. According to Finkelstein and Meyer, a suitable milk may be prepared as follows: One liter of milk is curdled, the whey is removed, and the curd is then suspended in ½ liter water and ½ liter buttermilk. This milk is indicated in dyspepsia, in diarrhea, entero-catarrh and intoxications of various nature. In simple diarrheas, sufficient quantities of this proteid milk may be given early, while in the more severe, toxic types, only small amounts are permitted at first. The milk will cure the diarhea but will not increase the weight; for this purpose, carbohydrates must be added, preferably in the form of dextrinized malt preparations. In children over three months old small amounts of wheat or oat flower may be given. It is necessary to continue treatment for six to ten weeks before ordinary milk is again given.—Berl. klin. Woch.

The Suprarenal Capsules in Pregnancy and the Puerperium.

Sambalino has examined the suprarneal capsules in 26 cases of pregnancy which ended fatally at the hospital in Florence; of these ten died of eclampsia with albuminuria; four had chronic nephritis, four had sepsis, five had various complications, three died of hemorrhage. The author finds that the principal alterations of the suprarenal capsules consisted in an hypertrophy of the cortical substance, and vacuolization of its elements. He believes found in these patients, pregnancy has been shown to cause a special reaction in the cortical substance, with pigmentation of the reticulated zone. It has not been demonstrated that the medullary substance is changed. In pregnancy complicated by nephritis and eclampsia there is a relative frequency of suprarenal adenomatosis. In infectious complicating pregnancy and the puerperium, especially when there have been severe and prolonged inflammatory conditions, there is a small celled infiltration of the fasciculated zone and the medullary substance, even resulting in connective tissue proliferation.—Annali di Ostetricia e Gynecologia.

The After-Results of Abdominal Operation on the Pelvic Organs.

Giles (Jour. Obst. and Gyn, British Empire) has considered the effect of operation for the removal of the appendages of one side and draws the following conclusions: (1) That these operations have no detrimental effect on the health of the patients, about 90 per cent, being better after the operation than bfore. (2) That the relief of symptoms is well marked in 87 per cent., the patients being free from or having less pain, while 5 per cent. were free from pain for a time, but developed pain later from other causes. (3) The removal of the appendages was followed by irregularity, diminution or cessation of mentsruation in 3.5 per cent., and in 2.5 per cent. there was diminution of the sex instinct. (4) That the chance of disease developing in the appendages of the opposite side is not great. Such an occurrence took place in about 10 per cent. Consequently, in view of the definite value of the remaining ovary and tube, it is always worth while preserving them when they appear healthy. Soiling of the peritoneum with the contents of ovarian cysts favors the occurrence of the later disease: (5) That the remaining tube and ovary have a considerable value from the point of view of subsequent pregnancies, 25 per cent. of the married women under 40 years of age become pregnant, but there seemed to be greater liability to the occurence of extra-utrine pregnancy than in other subjects. (6) A study of the sex of the children in the relation to the side on which the remaining ovary was situated, definitely refutes the theory that one ovary produces males and the other females.

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Prefetal Vaginal Dilatation in Breech Presentation.

Sauvage discusses the use of the Champetier le Rebes balloon not only for dilation of the cervix but also for dilation of the vagina in cases of breech presentation. It has been employed by Pinard, at the Baudelocque, in 50 cases, 39 of which were breech cases in primiparae, the others being multiparae. There is absolutely no danger for the mother and the prognosis for the life of the infant is made much better than ordinarily. It makes labor much easier and shorter, and facilitates any necessary manipulations. The period of expulsion is materially shortened. It prepares for a spontaneous delivery, and lessens the indications for extraction by the breech. It increases the strength of the child, betters its mortality by one quarter, and lessens the number of injuries it receives. Pinard believes that in every primipara with breech presentation the vagina should be dilated with a balloon. Among multiparae it should be used in breech presentations whenever the child is large in size. The balloon should be put in place when the cervix is dilated to the size of a five-franc piece.—Annales de Gynecologie et d'Obstetriques.

The Heart in Articular Rheumatism of Children.

Nobecourt says that rheumatism in children is peculiarly liable to affect the heart; the virus has a peculiar affinity for the endocardium and the myocardium. We may get valvular lesions appearing in slight cases without any fever. The lesions may take the form of endocarditis, pericarditis, or myocarditis. The most severe symptoms occur in the malignant cases in which there develop swelling of the jugulars, tachycardia, and cyanosis, and sudden death may result. In mild cases the immediate prognosis is good, but the remote results may be lesions that later result in death. These small patients in severe cases quickly emaciate and become cachectic. In mild cases there are no subjective symptoms, and the heart should be watched carefully to detect the physical signs. Treatment demands immediate rest in bed with milk diet and salicylates.—Archives de Medecine des Enfants.

Conservative Treatment of Furuncles of the Face.—Wrede (Munch. Med. Wochensch.,) says that in the treatment of furuncles of the face the surgeon should be constantly on the watch for thombosis of the large facial veine. The points to be particularly noted are extension of the infiltration, swelling and edema, increase of absorption of infectious material. He does not believe in the method of passive hyperemia, because it prevents proper supervision of the case and also thinks that incision can often be avoided. In the majority of cases healing occurs if the part is left at rest and all handling, pressure or the like, or the use of the fascial, as in speaking, are avoided. It is advisable to carefully remove the top of the pustule and then cover it with an ointment dressing held in position with adhesive plaster. This prevents the patient from touching the furuncle, relieves the feeling of tension, and also prevents the opening from closing. The knife need only be resorted to if an abscess forms, or exceptionally when severe pain with advancing thromposis occurs. Only a small incision is required, and drainage is usually superfluous. Incision in unfavorable cases is always to be preferred to stasis treatment. If thrombosis should result, the question as to whether to incise or wait depends upon the extensi n of the process and the general condition of the patient. It is not always necessary, however, to reject conservative treatment in the presence of a thombosis, since healing may take place without resort to the knife, although these cases require careful supervision. The conservative treatment is particularly indicated in women, where it is desirable to avoid any unnecessary scars.

Treatment of Traumatic Effusions into the Knee-Joint with Adhesive Plaster.—Belcher (Munch. Med. Wochensch.,) records 73 cases of fresh traumatic effusions into the knee-joint with excellent results by the following method, which enables the patient to walk about. The material required comprises eight to ten strips of adhesive plaster 15 to 16 inches long and five or six strips about 7 inches long. After the knee has been extended as completely as possible, the first strip is applied a hand's breadth below the joint at the inner side of the leg and drawn obliquely with some tension across to the outer margin of the patella and fixed at the outer aspect of the thigh. The second is applied to the outer side of the leg at the same level and extends over the inner margin of the patella upward to the inner surface of the thigh, both strips crossing over the petella. The ends of the strips should be held in position by the patient before application of the bandage. A short strip is then applied across the upper margin of the patella. The following strips follow the direction of the first three, extending obliquely upward or transversely across, so that the joint is finally covered by overlapping strips somewhat in the same manner as Gibney's dressing for sprains of the ankle. Under this dressing a reduction of the effusion is observed in a short time, being distinctly noticeable after eighteen hours, while in two weeks it has entirely disappeared. The plaster is then removed and a flannel bandage applied for a few more days. Of 62 cases thus treated 47 were enabled to speedily return to work.

Examination Questions of the Virginia State Board.

ANATOMY.

1. Describe the spine and give the general characters of vertebra.

2. Name and describe the muscles of the orbit.

3. Name the branches of the axillary artery and give its relation in its third portion.

4. What is the lymphatic system? Describe the thoracic and right lymphatic ducts.

5. Name the nine regions into which the abdomen is divided, giving their boundaries and contents.

6. Describe the superior radio-ulnar articulation.

HISTOLOGY.

1. (a) Name the elementary tissues of the body and give the morphological constitutents of each. (b) Describe a cell.

2. Name the varieties of musle tissue and give general distribution of each variety.

3. Give the two principal component parts of the nervous system. Briefly describe and give function of each.

4, Give the histological structure of the stomach.

EMBRYOLOGY.

1. What relation do the Wolffian ducts and the ducts of Muller bear to the sex of the fetus?

2. What is the difference between the human ovum and the ovum of the fowl as regards the no urishment of the embryo?

PHYSIOLOGY.

1. Give distribution and chief functions of vagus.

2. What is meant by an afferent impulse; an efferent impulse; by reflex act?

3. Give names and locations of the three salivary glands, with the manner of communicating with the mouth.

4. What part does saliva play in digestion?

5. Give composition of bile and its function in digestion.

6. What channels does the blood pass through in the systemic circulation, from leaving the heart till return to same? What changes take place in blood in each channel?

7. Describe the pulmonary circulation, giving changes in blood in same.

8. What is the lymphatic system?

9. How is heat dissipated from the body?

10. What organs eliminate soluble systemic poisons from the body?

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CHEMISTRY.

1. Give preparation, properties and uses of N_2O.

2. Give preparation, properties, and uses of (1) chloroform, (2) iodoform.

3. Name salts of K, and give preparation and medical uses of any two.

4. Give preparation of (1) ether, (2) chloral hydrate.

5. What is the periodic law?

6. Name three organic acids, and give description of two compounds of such acids used in medicine.

7. Name three sorts of sugars.

8. What changes occur in sugar solutions exposed to air?

9. What are the ordinary chemical substances used to produce soap?

10. Name four vegetable active principles used in medicine.

11. Name three mineral acids, with formula for any two.

12. Name following, any two:

(1) $C_2H_4O_2$ (3) $KMnO_4$ (5) C_6H_6O

(2) C_2H_2 (4) $Ca(ClO_3)_2$ (9) HNO_3

MATERIA MEDICA.

1. Define the following terms, giving an example of each: Alteratives, narcotics, diuretics, emmenagogues, mydriatics.

2. Define and classify anesthetics, naming the more prominent of each class,

and state which you regard the safest general anesthetic, giving the main reason why you so regard it.

3. Give doses of the following: Hydrochloric acid dilute, hydrocyanic acid dilute, oxalate of cerium, chloral hydrate, codeine sulphate, creosote, strychnia sulphate, tincture strophanthus, and atropia sulphate.

4. Give sources from which cinchona is obtained, what is the dose and how best administered?

6. Claesify astringents, with reference to the sources from which they are obtained and give one or more examples of each class.

7. Name several leading antipyretics and state in eneral how they reduce temperature.

THERAPEUTICS.

1. Give modes of adminstering drugs, and a good rule for dosage to children.

2. Give four general indications for diuretics.

3. What three ill effects sometimes develop during administration of digitalis, and what is its best substitute?

4. Write a prescription for four doses, containing four drug., having active cholagogue properties.

5. Give indications and contraindications in the treatment of poisoning by drugs?

6. What are the general indications in the treatment of poisoning by drugs?

7. Give symptoms and treatment for poisoning by carbolic acid.

8. Differentiate the coma resulting from opium, uremia and alcohol.

THEORY AND PRACTICE OF MEDICINE.

1. Give treatment and management, in general, of typhoid patient, during and immediately following profuse intestinal hemorrhage.

2. Give period of incubation and symptoms of smallpox.

3. Differentiate lobar from bronchopneumonia.

4. Give symptoms of acute uremia.

5. Give gross pathology of hypertrophic cirrhosis of liver.

6. Give treatment of acute nephritis.

7. Define (a) hydronephrosis; (b) empyema; (c) chlorosis; (d) Graves' disease; (e) sciatica.

8. Name the important complaints of acute articular rheumatism.

9. Name five important symptoms of tabes.

10. Give causes of arteriosclerosis.

OBSTETRICS AND PEDIATRICS.

1. Give relative diameters of inlet and outlet of the true pelvis and fetal skull.

2. Give preparation of patient, solutions, dressings, room and bed during labor.

3. Describe an up-to-date obstetrical bag and its contents.

4. Technique of applying and delivering by forceps a R.O.P. position, the head being through the cervix, but not on the perineum.

5. Course and treatment of (a) primary uterine inertia; (b) secondary uterine inertia.

6. Causes, symptoms and treatment of phlegmasia alba dolens.

7. Diagnosis and treatment of early hereditary syphilis in infants.

8. Give the handling and care of cow's milk in order to be able to dispense with pasteurization of the same for infant feeding during the summer months.

9. Give clinical manifestations of acute infantile paralysis.

10. Give causes and treatment of acute ileocolitis.

SURGERY.

1. What is surgical shock? How mana ged?

2. What is the difference between an acute abcess and a purulent infiltration?

3. Describe the appearance, symptoms, and management of a syphilitic leg-ulcer.

4. Differentiate an incarcerated from a strangulated hernia. What other conditions may be mistaken for them?

7. Give detailed description of an amputation at mid-forearm. Include technique (preparatory and operative), describe each step in regular order, until dressing is complete.

GYNECOLOGY.

1. What conditions may produce leucorrhea?

2. To what may dysmenorrhea be due, and how best remedied?

3. To what symptoms would a medium perineal laceration give rise?

4. Differentiale pregnancy, retained menses, and uterine fibroid.

5, What are the evidnces and manifestations of approaching puberty?

PATHOLOGY AND BACTERIOLOGY.

1. Define the terms thrombus and embolus, giving the causes and results of each.

2. Explain the occurance of the metastatic abscesses characteristic of certain infectious diseases.

3. Name the diseases in which intestinal ulceration in an essential feature. Name the portion (or portions) of the intestinal tract in which the ulceration is found in each of these diseases.

4. Describe the phenomena, or signs, of inflammation, illustrating the subject by

(furuncle).

5. Name the variety of degeneration termed cloudy swelling. Name the class of diseases in which it commonly occurs.

6. Name the class of tumors under which the carcinomata are grouped histologically. Name the subvarieties of carcinomata.

7. Give the bacteriology of erysipelas, syphilis, puerperal infections, and basilar meningitis.

8. Explain the mode of infection in the malarial fevers, tophoid fevers, tuberculosis, and tetanus.

9. Define the term protozoa. Name two pathogenic protozoa and the disease which each causes.

10. Give a typical example of an obligate parasite, and of a facultative parasite. Does the colon bacillus ever become parasite in nature?

MEDICAL JURISPRUDENCE.

1. Name six signs of death.

2. How soon after death does rigor mortis set in, and to what is it due?

3. How can you determine that a body has been burned during life or after death?

4. What is infanticide?

5. Define illusion.

TOXICOLOGY.

1. What is the first thing you would do in being called to a case of poisoning?

2. Name two reliable emetics with dosage.

3. Give the best general antidote for (a) arsenical preparations; (b) mineral acids.

3. Give symptoms of acute phosphorus poisoning.

5. Give treatment of carbonic acid gas poisoning.

HYGIENE AND PREVENTIVE MEDICINE.

1. How does standing water purify itself.

2. Give an efficient method of rendering river water suitable for town consumption.

3. In the disposal of sewage, which is the more effective: the intermittent or the continuous flow, and why?

4. Give a cheap and effective formula for disinfecting privies and water closets.

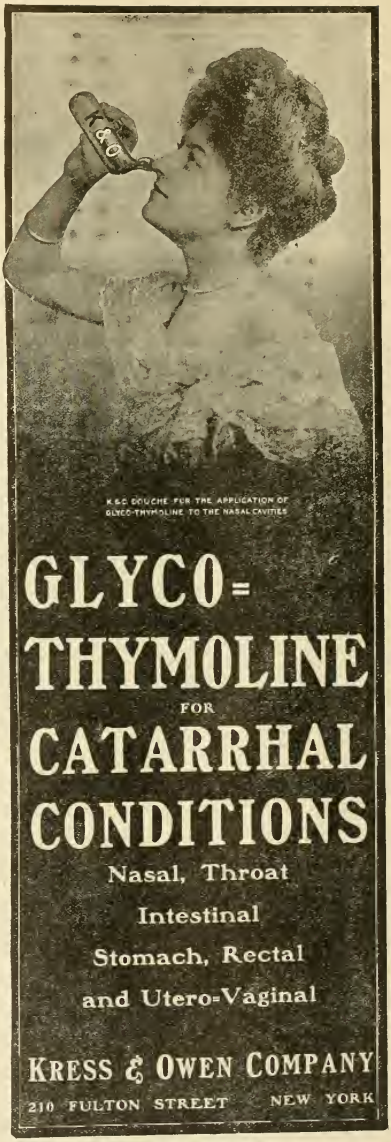
5. How would you manage an epidemic of scarlet fever, and how would you disinfect clothing and rooms?

State Board Examination Questions of South Carolina.

ANATOMY.

1. Name the bones of the lower extremity.

2. Name the muscles that rotate the eye.



FORMULA:

Benzo-Salicyl. Sod. 33-33; Eucalyptol .33; Thymol .17: Salicylate Methyl. from Betula Lenta .16; Menthol .08; Pini Pumilionis- 16: Glycerine and solvents q s. 480

3. Give origin and distribution of the pneumogastric nerve.

4. Locate the liver, with its relations.

5. Give the divisions and termination of brachial artery.

SURGICAL ANATOMY.

1. Name the various boney prominences or landmarks which are easily felt and recognized in the head and face which afford the means of mapping out the important structures comprised in this region.

2. Of what importance would ossification in the epiphyseal end of the femur be if found in a dead child? Why should we preserve the epiphysis in excision of the knee?

3. Where is congenital dislocation most often fonnd? Name location of displacement. How recognized?

4. Which is the most common form of strabismus? What muscle requiring division?

6. Why is thecal (or sheath) abscess of the thumb and little finger usually followed by abscess of the forearm? What precaution should be taken in amputation of the fingers?

5. Of what importance is the fibrous septum between the two halves of the tongue?

7. In fracture of the neck of the femur internal to the capsular ligament, what produces eversion? What produces shortning?

8. Where is the subclavian artery best compressed? Where best ligated, and line of incision?

9. What condition found in paralysis of ulnar nerve?

10. What marked symptom do you have in paralysis of the musculospiral nerve?

11. What regions of the eye are called filtration area and dangerous area, and why?

12. Why do we use the T[illegible]elenburg position (head and body lowered)? Why do we use the Fowler position (head and body elevated)?

PHISIOLOGY.

1. Name the uses of the blood.

2. Causes of the first and second sounds of the heart.

3. What result would follow extirpation of the thyroid gland?

4. What is ptyalin, and describe its action.

5. What are the functions of the skin?

HYGIENE AND STATE MEDICINE.

1. State what constitutes a good drinking water.

2. What effect has alcohol on the tem-re?

3. What are the injurious effects of the excessive use of tobacco?

4. Give amount of air space that should be allowed per head in sleeping apartments.

5. Period of incubation of smallpox, yellow, fever, and parotitis.

6. What hygienic and sanitary precautions should be taken to control spread of uncinariasis?

7. (a) Plague (bubonic plague); period of incubation and general measures to be taken for prevention of same.

(b) Cholera; incubation, etiology, and means of prevention.

8. Under what conditions have beriberi developed, and what hygienic measures should be taken to control same?

9. What effect has altitude on respiration?

10. Define a disinfectant. Name three, and give a recognized method of fumigating a room.

MATERIA MEDICA.

1. What would be a cathartic dose of calomel, and its physiological effect?

2. Dose of sulphate of morphine, with physiological effect.

3. Dose of elaterium, and physiological

4. Name two vasodilators, with dose of each to effect.

effect.

5. Name two vasoconstrictors, with dose of each to effect.

THERAPEUTICS.

In treating the following diseases, give dose and frequency of drugs used, with their physiological effect. If other methods than drugs are used, mode and physiological effect.

1. Typhoid fever. 2. Scarlet fever. 3. Chronic malaria. 4. Erysipelas. 5. Dysentery, acute catarrhal. 6. Rheumatic fever. 7. Peptic ulcer. 8. Enterocolitis of infants. 9. Cholera infantum. 10. Acute nephritis.

CHEMISTRY.

1. Define physical change and chemical change. Give familiar example of each.

2 What is the chemical relation between animals and plants? Which performs the office of reduction? Which of oxidation?

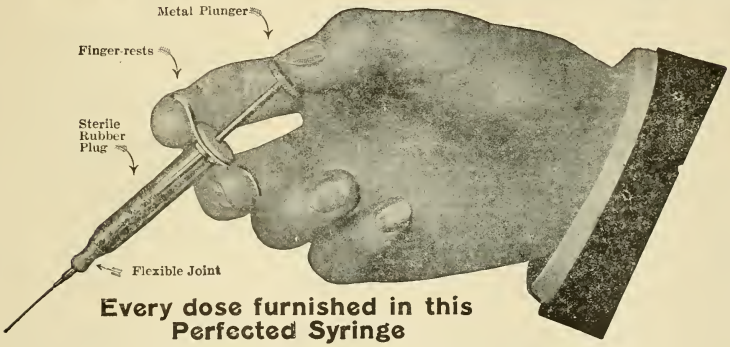
3. What is a chemical formula? What part of a compound does a formula represent? Give formula for the following: Hydrogen peroxide, common table salt, lunar caustic, aqua fortis. oil of vitriol.

4. In what two ways can electricity be produced? Give illustration of each.

5. What is the difference between galvanic and faradic electricity?

Mulford's Antitoxin

and the New Syringe



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PRACTICAL URINALYSIS, MICROSCOPY, AND TOXICOLOGY.

1. What is the specific gravity of normal urine? What condition would continued low specific gravity indicate? What continued high specific gravity?

2. What is the average amount of urine voided in twenty-four hours? What conditions may vary this amount?

3. How would you make a chemical analysis of the urine for life insurance?

4. How would you make a microscopical examination of the urine?

5. What is the difference between a simple and a compound microscope?

6. How does the knowledge of microscopy aid in practical diagnosis?

7. Under what two heads may poisons be classed? Give an example of each.

8. Give symptoms and chemical antidote for opium poisoning.

9. Give symstoms and chemical antidote for acute silver nitrate poisoning.

10. Name and describe the condition which the continued use of silver nitrate as a drug is liable to produce.

BACTERIOLOGY AND PATHOLOGY.

1. Describe briefly the bacillus of tetanus, modes of infection, and best methods of prevention.

2. Describe briefly the bacillus typhosus. Name sources of infection, sources of elimination, and what is meant by typhoid carrier.

3. Give pathology of lobular pneumonia.

4. Describe the pathology of interstitial nephritis, and give the most common accompanying pathological conditions.

5. Give the symptoms, pathology, and termination of inflammation.

MEDICAL JURISPRUDENCE.

1. Give the symptoms of chronic cocainism.

2. Give dose of bichloride of mercury and symptoms of acute poisoning by same.

3. Describe post-mortem findings in acute poisoning by Paris green.

4. Define illusion, hallucination, and delusion, and what is meant by delusion of persecution.

5. In a case of suspected infanticide, how would you determine whether infant was born alive?

6. What conditions influence time of appearance and disappearance of rigor mortis, and what is meant by cadaveric spasm?

7. How would you determine whether a wound was received before or after death?

8. Give the usual causes of death in cases of burns.

9. What conditions simulate death, and what are the most important certain signs of death?

10. What precautions would you observe in submitting stomach and contents for analysis?

PRACTICE OF MEDICINE.

1. Give a description of herpes zoster, metioning the diseases with which it may be confounded and their diagnostic differences, and give the treatment of an acute case of the affection.

2. What are the causes, signs, and symptoms of a dilated right heart? Describe the remedial measures you would recommend.

3. Discuss the clinical significance of pain at the epigastrium.

4. In what diseases may pus occur in the urine! What treatment would you recommend in diseases mentioned?

5. Describe a case of Bell's paralysis.

6. Mrs. A., aged 30, has had a temperature for ten days ranging from 100° in a. m. to 103° in p. m. There are no clinical symptoms or signs of disease except the continuous temperature. What diseases would you consider in making a diagnosis? Give briefly these diagnostic differences.

7. What are the causes, symptoms, and treatment of ptomaine poisoning?

8. Describe an ordinary case of measles.

9. Discuss the clinical significance of a convulsion occuring in a child under two years old.

10. (a) At what age would you expect an infant to commence to cut teeth? What are the causes of delayed dentition? (b) A child two and a half years old has never walked. How would you investigate this case to find out the reason for his not walking?

OBSTETRICS AND GYNECOLOGY.

1. Give the signs of pregnancy and the differential diagnosis of pregnancy.

2. Define podalic version, give indications for, add describe technique.

3. Give symptoms of toxemia of pregnancy, prophylaxis of, and treatment of.

4. Give symptoms of threatened abortion and of inevitable abortion, and treatment of each. Also treatment of incomplete abortion.

5. Give the diagnosis, symptoms, and treatment of placenta prævia before labor and after labor had commenced.

6. Give the diagnosis of L.O.A. and L. O.P. presentations.

7. Give the diagnosis of face presentations and varieties and prognosis.

8. Give and explain the methods of examining the uterus.

9. Name and describe the various dis-

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placements of the uterus and the common symptoms produced by each.

10. Mention the causes of cystitis in a woman and the treatment.

SURGERY.

1. What are the indications for trephining? Describe the operation.

2. Describe ligation of the brachial artery in the middle of the arm.

3. How would you treat a compound fracture of the lower third of radius and ulnar when one or more tendons are severed?

4. Empyema: Diagnosis and operative treatment.

5. Carbuncle: Definition, progress and treatment.

6. Inguinal hernia: Differentiate between oblique and direct; describe radical cure of oblique variety.

7. Stone in the bladder: Diagnosis and operative treatment.

8. Shock: Definition, symptoms. How would you prevent shock in operations?

9. Gangrene: Definition, cause, and treatment.

10. Give the several steps in the operation of amputation of the thigh at the junction of upper and middle third.

The vaccine treatment of Acne Vulgaris.—Western defines acne vulgaris as a condition in which there is a hypersecretion of sebaceous material associated with or caused by a microbacillus, probably the Acne bacillus described by Unna, Sabauraud and Gilchrist. The staphylococcus is frequently associted with the Acne bacillus in producing the lesions characteristic of the disease.

By rubbing cultures of the Acne bacillus into the sterilized skin of susceptible individuals a pustular folliculitis is produced from which the Acne bacillus can be recultivated. The opsonic index of acne patients is not normal and an excessive dose of acne vaccine produces a negative phase and a new crop of pustules. It is supposed that a seborrhœa caused by some functional disorder forms a favorable point of entry for the acne bacillus.

Three types of acne are mentioned—first, in which the comedo forms the chief lesion, second where induration predominates and third the pustular type. In the first type the acne bacillus is generally found to be the infecting organism, in the second type the infection is usually mixed acne bacillus and staphylococcus and in the third type the infection is most often due to the staphylocccus.

Before attempting vaccine therapy it is essential to determine the nature of the infection by the use of smears and cultures made from the lesions. Either a stock or an autogenous vaccine may be used. The author finds the stock staphylococcus vaccine satisfactory but an autogenous acne bacillus vaccine is preferable although a stock vaccine suffices in many cases.

The dose of acne bacillus vaccine is much smaller than most vaccines varying from three to fifteen million bacteria per dose administered at intervals of eight days. Local treatment should be carried out in conjunction with the vaccine treatment.—British Journal of Dermatology.

Typhoid Carriers.—Eccles, in the Dietetic Hygienic Gazette, says:—"Without carriers the continuance of the disease would be impossible. They first infect water and milk in regions previously free, they supply the sporadic cases by infecting food. They and their victims produce great epidemics. Only through them is it possible for the dose of any kind of disease germs to be multiplied up to the point of infecting whole communities. It is easy to understand that typhoid carriers who work ig dairies may be, and almost certainly will be, the means of spreading typhoid fever, for milk is a medium in which the germs increase with almost incredible rapidity, and the purer the milk the more rapidly will the germs increase. People working in kitchens as cooks, or who handle food to any eqtent, if typhoid carriers, have peculiear facilities for spreading the disease. In the United States and in Canada the significance of the mode of disseminating typhoid is impressing itself vividly on the consciousness of medical man, and it is felt that many epidemics of hitherto obscure origin may be explained in this way. The findings of an expert commission, as the commissioner working in Washington was, has almost clinched the view that typhoid carriers are important factors in the spread of the malady. How are typhoid carriers to be dealt with even when discovered? It would be impossible to segregate them, and and the only remedy seems to be unscrupulous personal cleanliness, and especially of those persons who work in dairies, or who handle food. Hands must be frequently washep thoroughly."

Medicines Not the Cause of Decay of Teeth.—Austin in an address before the British Med. Society, said that there is a very widely spread and deeply seated popular belief that the taking of medicines is a common cause of the decay of the teeth. This belief is fostered, he states, first by the fact that certain drugs, such as iron, cause an obvious, though superficial, blackening; and, secondly, that decay of the teeth is found to be prevalent after such distu-r

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bances of the general health as are commonly treated by the administration of medicines. The belief that drugs injure the teeth appears, however, to rest upon but slender foundations, the popular prejudice resting upon a basis of "post, ergo propter, hoc." Two classes of drugs would appear prima facie to be a potential source of caries:

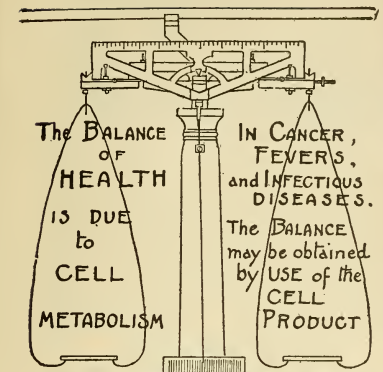
(1) Acids, administered internally or used as local applications to the fauces. Very dilute solutions of weak acids, if applied continuously, have been shown by experiment to appreciably destroy the enamel. But in the mouth acid medicines and gargles are not applied continuously, but very intermittently, and in the case of fluids, mostly to the exposed surfaces, which are constantly washed by the saliva. All modern research tends to prove that the acids really injurious to the teeth are those generated in situ, in places which do not admit of natural cleansing, by the fermentation of the remains of carbohydrate foods.

(2) Mercury. Mercurials when administered in infancy have been credited with the production of hypoplasia of the teeth, the so-called honeycombing. The evidence for this is far from convincing. If, however, the point be proved, it would be an instance of a medicine causing predisposition to decay, to which hypoplastic teeth are very liable. Mercurials administered in large doses have long been known to cause well-marked disturbances in the associated tissues, the gums, and even bone. It is conceivable that mercury acting in this way, where there has been actual ulceration and permanent loss of tissue, may cause a predisposition to caries at the necks of the teeth. Lead, bismuth, silver or copper, being drugs partly excreted by the oral mucous membrane, have been credited with occasionally producing effects similar to mercury in septic mouths.

The only treatment for the correction of the effects of these drugs, if any is required, seems to be to maintain complete cleanliness of the mouth, and to neutralize the effects of acids taken by the immediate use of an alkaline mouth wash.—Brit. Med. Jour.

Balneotherapy.—Joly in La Clinique discusses the advantages derived by patients from residences at spas or baths. Most of the thermal establishments are small villages situated in the open country, thus affording the advantages of pure air and altitude- The action of air upon the cutaneous, respiratory, and circulatory systems is important in restoring the physical functions; aerotherapy, combined with respiratory gymnastics, can be added to the ordinary spa treatment with advantage. This class of gymnastics is of special benefit to patients suffering from some of the disorders of circulation; it tends to regulate heartbeat, while the movements of the thorax and diaphragm have a powerful effect upon the venous circulation, especially in connection with the lower parts of the body. A retarded venous circulation is thus stimulated, and physiological activity is promoted in the viscera by the massage which results from the increased movement. The elimination of toxic products and the alteration produced in the blood has an important effect. Aerotherapeutics are not confined to respiratory gymnastics only; they include heat, light and electric treatment, the application of these means allowing of the functions being decreased or increased, while the action of the skin and nervous system is improved. Air and sun baths should, if the climate permits of it, be used to supplement the water treatment. It is occasionally wise to commence the cure by giving the patient complete rest in bed for a more or less length of time, after which he will derive help from carefully arranged physical exercises, walking, and when desirable, massage. When the waters are being drunk, diet becomes one of the most essential points; it is often modified according to the resources of the neighborhood. In some resorts it is easy to carry out a milk, sour milk, or grape cure, while in all places a diet which is largely vegetarian and fruitarian is to be considered. As a rule there is no advantage in having recourse to drugs during the cure, which ought to rely chiefly upon assisting the patient to obtain the most complete advantage from his surroundings.—British Medical Journal.

Treatment of Placenta Previa.—Hauch (*Monat. f. Geburts. u. Gyn.*) mentions the indications for treatment of plancenta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previa. The conclusion, given as a result of the births at the Hospital for Women prove distressing to the gastric apparatus. A striking exception is the *Cord. Ext. Ol. Morrhuæ Comp.* (Hagee). Although it is just as potent a tissue builder as the crude product, it poessesses added advantages in that it is palatable and this is a most important feature. It agrees with weak stomachs in a surprising manner and may be continued indefinitely without giving rise to gastric unrest.

Double central Blindness Following upon Injury to the head by a Fall.—Buchanan in the Glasgow Medical Journal records a case of a man who on account of a fall on the street and striking the back of his head on the causeway stones, lost the power of central vision of both eyes, while peripheral vision remained but little altered. As regards the position of the lesion it may be said that there are only two parts in the brein in which a single lesion could cause bilateral central blindness, i. e., the anterior part of the chiasma and the posterior part of the great longitudinal fissure. In the first of these positions it is possible that a spicule of bone might be driven through the tissues in consequence of a fracture of the body of the sphenoid bone. Although it is comparatively common site in which to find a fracture, it is not by any means probable that only the macular fibres would be cut in the event of the optic commissure being injured. The optic chiasma would only be wounded by a piece of bone driven from below upward, in all probability, so that we have here a series of circumstances required for the production of that lesion which would be very uncommon. Regording the other site in which it is probable that an injury such as occurred in this case would cause symptoms comparable to those found in this patient, it is considered to be the fact that the centres for vision are situated in the region of the calcarine fissure, at the deepest part of which the centre for the macula is situated. Granting that a hæmorrhage had taken place in this position in the meninges or between the layers of the membranes, it is a source of difficulty that while a hæmorrhage would press most strongly on the summit of the convolutions bordering on the calcerine fissure, leaving the deepest part of the sulcus little or not at all affected, here the damage done has been to the macular centre. He says that the difficulties in the way of the acceptance of the first site are less than those in the way of acceptance of the second.

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Gastric Hypersecretion.— Hypersecretion of gastric juice invariably depends upon an organic lesion, which usually takes the form of a chronic ulcer of the stomach or duodenum, calculus in the gall-bladder, or latent disease of the appendix, although it is probable that future investigations will prove that pancreatic calculus, tuberculosis of the cæcum, and carcinoma of the appendix are also capable of producing it. Of the last named, one case has already come under observation. This disorder of secretion is merely the physiological expression of a reflex irritation of the gastric glands and is therefore not entitled to be regarded as a disease. The continuous flow of hyperacid gastric juice, whatever be its cause, always excites severe inflammation of the stomach, and is very liable to be followed by ulceration of that viscus or the duodenum. This secondary ulceration is at first superficial in character and may not be demonstrable on examination of the exterior of the stomach. Minute hæmorrhagic erosions, capable of producing alarming hæmatemesis and melæna, are usually associated with, and caused by, this abnormality of the gastric secretion.

Latent disease as the appendix as the result of former acute inflammation is accompanied by a peculiar form of digestive disturbance. In this condition subacidity of the gastric juice, with an absence of free HCL, is the rule. With the exception of hæmorrhage, all the symptoms that are regarded as pathognomonic of duodenal ulcer are in reality due to the gastric hypersecretion that always accompanies this lesion.

It follows, therefore, that a severe example of hypersecretion may, as a rule, be safely diagnosed as a case of duodenal ulcer. Contrary to the usual belief, carcinoma of the pylorus is sometimes accompanied by extremely well-marked hypersecretion. In such cases the morbid growth develops with extreme rapidity, and violent hæmorrhages, due possibly to digestion of the tumor, are exceptionally frequent.— Fenwick, London Medical Lancet.

Treatment of Warts.—Little in the London Practitioner, states that the common wart, as it occurs upon the skin, is most frequent in children, and appears to follow a mild local irritation. For local treatment he suggests the following: One part of corrosive sublimate, with twenty-five parts of flexible collodion, painted on the wart once a day. When this measure fails, the wart may be removed by electrical or surgical means.

Infantile Scurvy.— Hamilton (British Journal of Children's Diseases) reports two cases, the first of which was fatal. The first symptoms of spongy gums appeared when the first teeth were cut at the age of eight months, but two months passed before the other symptoms of general tenderness, hæmorrhages under the skin and with the urine, were noticed. At this period the blood showed red blood cells 1,380,000 leucocytes 15,600, and hæmoglobin 16 per cent. The child died at 11 months old, and the autopsy showed the characteristic hæmorrhages under the periosteum of the orbit, femur, tibia, and ribs. The second case was in a child which had been fed chiefly on a patent food. When nine months old the legs became sore, and a month later the right eyelid became suddenly swollen, and the eye was displaced forwards and downwards. There was some purpura but no hæmorrhages under the gums. The red blood cells were diminished to half and the hæmoglobin to 26 per cent. Under a suitable diet the infant rapidly improved. The X-rays show, as described by Frænkel, a characteristic shadow in the most recent zone of the diaphysis; this is broader in the middle of the zone and diminishes laterally.

Surgery of the Lymphatic System.— Handley, in the London Medical Journal, says that in 16 per cent. of all cases of mammary cancer, a lymphatic edema of the arm sets in. This causes extreme pain, the joints become stiff and the extremity useless. In cancer *en cuirasse*, the swelling of the skin of the thorax is, at least in part, also due to this type of edema. Formerly it was thought that these edemas were due to an occlusion of the axillary or other vein. He has, however, shown that they are due to the growth of carcinomatous strands. Until recently the only effective therapy for this cancerous edema was amputation of the arm. Two years ago, however, the Doctor indicated a procedure by means of

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which the arm may be preserved and the lymph-vessels replaced by artificial ones. Silk threads are run along under the skin from the edematous to healthy areas and are allowed to remain in *situ* for some time. A fibrous tube forms about the thread and, upon the withdrawal of the latter, acts as an artificial lymph-channel. Handley has done this operation fifteen times with one death. The operation is only a palliative one and has no effect upon the cancer. It does, however, free the patient promptly from the edema and converts a useless and painful member into an efficient one.

In ascites, he formerly used Wynter's method of continuous drainage into the

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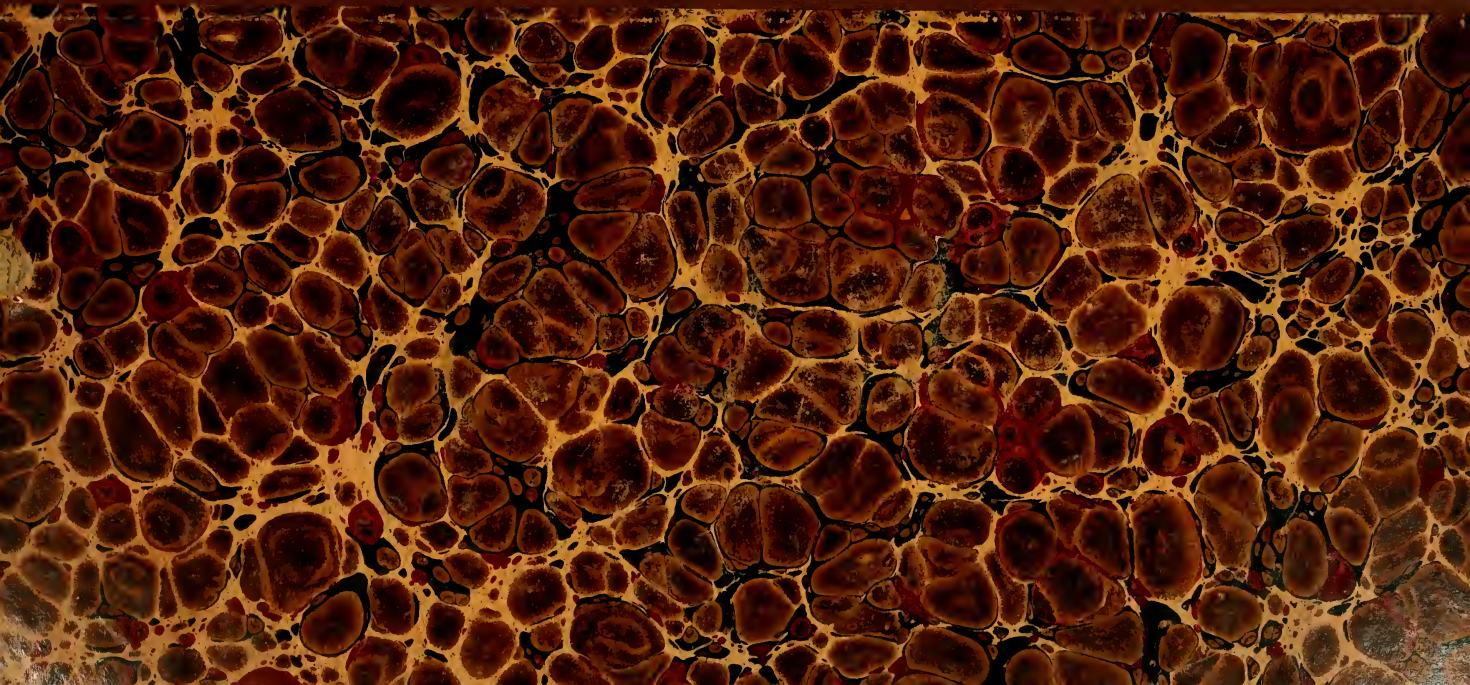
femoral canal by means of a peritoneal opening. A trochar with its cannula is thrust into the peritoneal cavity two inches above the symphysis. The sharp trochar is withdrawn and replaced by a long blunt probe within the peritoneal cavity directed towards the wound, and an opening of the peritoneum made at this point. The edges of the peritoneal opening are fixed by stitches and the wound closed. Of four operations of this sort, two resulted in permanent cure of the ascites; two were not followed by improvement, evidently because the peritoneal opening was obstructed by omentum or loops of intestine. Handley has, therefore, recently, in one case, used a modification of his method of lymphangioplasty. The abdomen was opened in the left semilunar line and the ascites evacuated. Four long, thick, silk threads were drawn, beneath the peritoneum, through the sub-peritoneal tissue of the iliac fossa. Having reached the neighborhood of the anterior superior spine, the ends of the threads were thrust, by means of a long probe, under Poupart's ligament into the subcutaneous tissue of the thigh. The patient has been permanently relieved of her ascites which evidently drains along the silk-threads into the tissues of the thigh and is there reabsorbed.

This work of Handley's is of the first importance and bids fair to replace both the Talma operation and repeated paracentesis.

Injection of the Broad Ligaments With Quinin for Prolapsus Uteri.—Parsons (Journ Obst, and Gyn. British Empire) reports that out of 178 cases treated by this method only three had suppuration, and these were women exhausted by large families and in low condition. The best time to operate is a week after menstruation is over. An anesthetic is advisable, and a catheter should be passed to ascertain to what extent the bladder falls down on each side of the uterus. A Sim's speculum is passed and a large retractor to draw the bladder well up and out of the way. A straight sound is passed into the uterus and held horizontally by the operator while the syringe containing the solution is introduced. The injection is made on each side of the uterus through the vaginal wall at a distance of ¾ of an inch from the cervix and a little below the level of the external os. The needle is about one inch long. The site of the injection should be half way between the normal position of the cervix and the pelvic wall, so that the uterine artery, veins and ureters lie inside above the needle. After the injection is made the uterus is anteverted and a cup-and-stem pessary inserted. This is worn for three days, and the patient is instructed to lie on her face and side, so as to throw the uterus forward. In minor cases a perineorrhaphy may be done at the same sitting, in which case a pessary cannot be worn, and then the patients hips are kept raised so as to keep the uterus higher in the pelvis. The solution used is 12 grains of quinin sulphate dissolved is 30 minims of dilute sulphuric acid and 30 minims of distilled water, from 40 to 80 minims of this solution being injected on each side in ratio to the extent of the prolapse. Ten minims less are injected on the left side than on the right, on account of the presence of the rectum. The patient must be kept in bed at rest for 10 to 14 days in first stage cases of prolapse, and longer in the more severe, and anything liable to put a strain on the ligaments must be avoided for three to six months. Some cases require two, or even three, injections, when the quantity of solution is reduced by one-third, given after an interval of 14 days. The anthor had 75 per cent. successes, 20 per cent. improved, and 5 per cent. failures.

Sausage Poisoning.—Hinze (Berliner klinische Wochenscrift) records a case in which a young man, aged twenty-two, within twenty-four hours after eating half a pound of sausage, presented symptoms of acute intoxication—vomiting, rapid pulse, albumin in the urine, diminished quantity of urine and other signs of kidney inflammation; constipation, slight fever, together with total blindness, paralysis and disordered sensation in the lower limbs. At the end of four months' treatment his condition was still very bad. Movements of the limbs were possible, though they were still very weak. Loss of sensation and disordered sensation still persisted in the legs. The left eye regained a fair degree of vision; the right remained very bad.